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COLMAN'S RURAL WORLD

HORMAN J. COLMAN, | EDITORS.

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Published every Wednesday, in Chemi sal building, corner of Eighth and Olive ts, St. Louis, Mo., at one dollar per ear. Eastern office, Chalmer D. Colman 130 Temple Court, New York City. Adwill find the RURAL WORLD the best advertising medium of its class in the United States. Address all letters to COLMAN'S RURAL WORLD, Chemical Building, St. Louis, Mo.

While the RURAL WORLD is publishe at one dollar a year, it has temporarily allewed old subscribers to send actually NEW OR TRIAL subscribers with their scriptions at fifty cents a year, order to largely increase the circulation and influence of the paper. This price is less than the cost of the white paper, swork, folding, wrapping, mailing and prepaying the postage, saying nothing of any other of the large expenses of main taining offices, paying salaries and consuch a paper in a large city. Reunless accompanied by one or nore NEW subscribers must be at one sollar a year. All names are dropped as becriptions expire. The month ed en the address tag, pasted on each issue, shows the month subscriptions expire, and renewals should be made two or three weeks before, so that names shall not drop out of list. It is gratifying to the proprietor to be able to state, in his half century's experience in conducting this paper, it has never enjoyed the and prosperity it now bes. Its circulation is increasing in derful degree, and its advertising many of whom have used its solumns for a quarter or a third of a century, are more than pleased with results. Let all our friends unite and press forward in extending its sphere of influence. It will do for others what it is doing for you, so get others to join the great RURAL WORLD army and receive the

The summer meeting of the Missour Horticultural Society will be held at New Haven, Mo., June 4-6, 1901. Further anwill be made in our next is-

same benefit.

By the statement that appears on page eight of this issue, it appears that the li-linois Legislature just adjourned made appropriations amounting to over \$300,000 per annnum for the encouragement and ent of the agricultural interests of that state. Surely the farmers of Il-nois have little to complain of as to the ent of their interests by the Legis-

A TENNESSEE FARMERS' MEETING.

The East Tennessee Farmers' Convention, to be held at Knoxville, Tenn., May Soule, the assistant secretary, to attend.
We would not only be interested in the program with which such men as former Geo. Wm. Hill, Prof. Willis F. Moore, Prof. W. M. Scott and others are to asvisit the Tennessee Agricultural College and see some of the good work that Prof. Soule and his associates are carrying on so successfully. So far as possible Tennessee farmers should attend this con ntion-for the good they will get directwho are pushing forward so intelligently of their state.

MISSOURI HISTORY.

The Missouri State Historical Society, support of which the 41st General Assembly appropriated \$4,500 for the next two years, held a meeting in Columbia. April 29, and effected a temporary organ , with E. W. Stephens as pre and Isidore Loeb as secretary. Minnie Organ was elected librarian. None The temporary organization will con-

IT IS GETTING INTERESTING.

That "Nothing succeeds like success is exemplified in the manner in which the action of the Missouri General Assembly in providing for a Dairy and Live Stock Building and Chair of Dairy Husbandry at the Agricultural College is received Not only is there a "whole host" of men ready to come to Missouri from leading dairy states, and, for a salary, help develop a dairy industry here where many have been wont to say none could ever be developed, but the press, even the city daily, is booming the business. A St. Louis paper gravely remarks: "Now that the state has provided for the equipment of a Dairy and Live Stock Building and a chair of dairy husbandry at the College of Agriculture, we shall doubtless see more interest taken in intensive and scientific farming in Missouri.

"It has been customary in some quar-lers to ridicule the scientific farmer, but

acts have proven that exact attention to etails and living up to the latest dis overies in agriculture are paying. ound of butter made according to the est modern methods will average 23 cents n the market, against 11 cents for stuff made on the rule of thumb methods once in common use.

"Every gain in knowledge of how t raise cattle, dairy produce and crops and market them with 'gumption' is an ad-dition of wealth to the producers and to the state.

The RURAL WORLD said recently that the action of the 41st General Assembly in providing for a chair of Dairy Husbandry marked the beginning of a new era in Missouri agriculture. Evidence is a cumulating that the new era has begun with a swing that will stir things.

USING FERTILIZERS.

terest to farmers, and yet one which is very little apprehended, because to get the very best results, close observation and intelligent experimentation are posi-tively essential, and these, too, by the individual farmer. As a rule a so-called rich soil is deemed to be the one essential What is a rich soil? is a very important interrogation for soil tillers to make. The soil is simply the seed bed, and if it does not contain the needed food in proper pro-portions for a given plant and in a condi-tion easily rendered soluble and available, no matter what the chemical analysis may be, this plant will not give the larg-

In increasing soil fertility so many factors enter into the problem that the farmer must be a student not only of soils and the chief elements needed for plan growth, but also of the chemical composition of the plants themselves in order that he may supply the food needed by them This is especially true if the system advo-cated by the French scientist, George Ville, is true. He has classified plants for fertilization into three groups, making this classification according to the domi-nant ingredient needed for the plant grown. Thus nitrogenous fertilization is grown. required for wheat, oats, rye, barley and meadow grass; phosphoric acid for Indian corn, sorghum and sugar cane, and potash for peas, beans, clover and potatoes This does not mean that only a single element is required for a plant, but that the dominant ingredient needed should be the one to be in excess in the fertilizer ton, to be held at Knoxville, Tenn., May 21-23, will be an occasion that ought to be largely attended, judging by the program that has been arranged by the farmers of that state. We regret not being able to to be used hit or miss, which results as PEBBLES FROM THE POTOMAC. cept the invitation of Prof. Andrew M. many times in a miss as in a hit and leads

to condemnation of fertilizers.

Then, when to use fertilizers is anothe very important consideration. It is gener Governor Hoard. Prof. Thomas Shaw, ally recommended that phosphoric acid in the form of dissolved bone, ground bone boneblack and acid phosphate; and pot sist, but we would have been glad to ash in the forms of sulphate of potash muriate of potash and kainit be applied several weeks before the seeds are plant-ed, while in the application of nitrogenous fertilizers more care must be take If that very soluble and quick acting form of nitrogen is used—nitrate of soda—i should be applied as a top-dressing to stimulate the plant to hasten its growth But farmers are learning the value of the clovers, cow peas and the legumes to fur-nish the soil with the needed nitrogen. The farmer who gets from his land all that it is possible to get will make thor ough study of fertilizers in their various relations to soil and plant life.

BARN PLAN SUGGESTIONS WANTED.

Editor RURAL WORLD: On April 12th we had one of the hardest hallstorms I Williams was made treasurer, and Miss ever witnessed. Fortunately for our imnediate neighborhood the heaviest part of the officers receive any salary except of the hall was three or four miles west the librarian, who is paid \$60 a month. ground to the depth of five inches or more tinue until the regular meeting, on August
10. This society is an outgrowth of a moveWhere the hall was worst the peach buds

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This society is an outgrowth of a movement inaugurated by the Missouri Press and blooms were stripped from the trees.

Association and editors of papers that While we were fortunate in being in the are sent regularly to the library are, under the constitution adopted, members of nate in being in the path of a young cylice of the path of the p



S. F. GILLESPIE, THE WASHINGTON, D. C., CORRESPONDENT OF THE RURAL WORLD.

Our readers will be pleased, we are sure, to become a little better acquainted with the writer of "Pebbles from the Potomac," Mr. S. F. Gillespie of Washington, D. C., so we present his portrait.

will have to be pulled down. In fact, I have it nearly taken to pieces and find it as hard work as I ever tried. I want to as hard work as I ever treed. I want to build me a new barn, using what lumber I can save from the old one, and would like some suggestions as to the plan. I know what I want, but whether the plan is a good one for stable stock and feed is what I want to know. My plan is for a building 32 feet wide by 40 feet long and 14 feet high, or to the square, the gables facing north and south. A walk or aisle eight feet wide will run through the cenare to be stalls 4x12 feet, and one box stall for horses; on the east stalls 3\(\frac{1}{2}\)x12 feet for cows; at the north end on the west side will be a room 10x12 feet for harness, ground feed, etc. On the east side a corr rib 6x12 feet and an oat bin 4x12 feet, all eight feet nigh. The mow will hold about

30 tons of hay. The above plan is as handy as a pocket a shirt. But is it best to have the cows, horses, hay and grain in the same building? Any suggestions for the improvement of

the foregoing plan, or different plans, will

ne gladly accepted by yours truly,
Vernon Co., Mo. C. A. BIRD.
Farmers' Bulletin No. 128, "Practical
Suggestions for Farm Buildings," by Suggestions for Farm Buildings," by George C. Hill, and published by the U. S. Department of Agriculture for free dis-tribution, will, we think, be very helpful to Mr. Bird and others who are contem plating the erection of farm buildings. We will be glad, too, to have our readers offer suggestions to Mr. Bird.

While it is handy to have hay storage

PEBBLES FROM THE POTOMAC.

the Lee farm, containing 249 acres, went for \$6,000, and the Highland farm, con-

ON TO OKLAHOMA.-Owing to the contemplated opening up to settlement of new lands in Oklahoma Territory, under the act of March 3 last, providing for disositions of lands ceded by the Wichita. Klowa, Comanche and Apache Indians, the correspondence of the Commission of the General Land Office has reached ous proportions. It is anticipated nasmuch as the lands offered for ettlement include only about 12,000 quarer sections, or an equal number issued until after August 6 next.

layton, of Manchester, N. H., has just of the United States and Europe placed with dealers in Kansas and Okla-

these 28,800,000 eggs in cold storage at Manchester, N. H., and Quincy, Mass., and sell them when the market will afford him a profit.'

BEES.-The attention of the Commis sioners of the District has been sailed to the matter of keeping bees within the city limits. Some complaint has been made to the effect that bees within the city lim its are a nulsance and market men de-clare that bees are annoying to their cus-tomers. Notwithstanding these protests, ter, with mangers or feed boxes 2½ feet the bees have a true friend in the person wide, as long as the stalls are wide and of Prof. Cleveland Abbe, who has written two feet deep, on either side. On the west a communication to the Commissioners a communication to the Commissioners asking that the keeping of bees, especially those of the Italian persuasion, be made legal and allowable within the city limits, with such regulations as may be necessary for the protection of those who desire to prosecute this method of making a livelihood. The professor says there are hundreds of hives of bees in the yards in this city, and believes it would sub-serve the best interests of the community to make a general regulation rather than to leave it to any one's neighbors to make formal complaints. He is inclined to the opinion that the harm done by the bees is infinitesimal compared with their usefulness; that every poor man ought to have the privilege of keeping a bee hive. The bees, he claims, ordinarily attend to their siness without harming anybody. It requires a great deal of irritation from out side parties to induce them to sting, and more hurtful than horses dogs or cats. The professor has several hives of bees and is constantly increasing his supply.

CROP CONDITIONS.-The Department ure has abou whereby an exchange of crop reports of itor is, as usual, right. Here we work foreign countries will be supplied the pubtwo days per year. Eaca man between 21
cleach month. Secretary Wilson is sanand 55 years has to perform this work cothat the contemplated in secretary secretary is a substant and the secretary secre PEBBLES FROM THE POTOMAC.

Editor RURAL WORLD: A press report from Lexington, Va., indicates that farm lands in that section are in demand, and bring good prices, too. The report says that the farm of Alfred A. McCornick, containing 182 acres, brought \$7,500; turist to intelligently decide upon what crops can be advantageously cultivated.

The bulletin will be comprehensive, gived to turnpike repair and here wholesale g 275 acres—a stock farm—brought
Pretty good prices for the Old Docrops from seedtime to harvest. In this connection, it may be stated that in the growing of wheat in the old world, Russia stands first, France second. Argentine to seeking the lab without regard to litness of the parsia stands first, France second. Argentine sia stands first, France second. Argentine and Chile are the chief wheat-producing ountries of South America. The Arge tine crop is especially important to the United States, as it is harvested in January and is thrown on the market on what is known as the dull season, cor affecting prices in the United States to some extent. The harvest of wheat goes on in every month of the year in some portion of the globe. In January the fields are ready for the harvester in Aus-tralia, New Zealand and South America. homes, the rivalry for a homestead this race will be tremendous. The proclamation opening up this section can not be April it is harvest time in parts of India; in April it is harvest time in Apri In February the hum of the reaper is EGGS.—An exchange says that "H. M. June and July find the field ready in parts ontinues through August, and September, October, November and De cember there are small harvests in vari-

Washington, D. C., April 28.

the society.

clone that was playing along on the edge of course, Mr. Slayton does not want to the storm. It struck the southeast corwork of this society and suggested that mer of my largest barn, snatched up near-lit is not known that he eats eggs at all, and it is certain he is not song to live included as a part of the work, and it more away, playing smash with it and doubtless will be.

Locked up in a seed is the embyro of the storm. It is not known that he eats eggs at all, and it is certain he is not song to live included as a part of the work, and it more away, playing smash with it and doubtless will be. the plant,, flower, tree, fruit. It is the task of the farmer or gardener to break ALL ALONG THE LINE.

managing a large farm in Blank County. He asked my opinion on a matter con-nected with farm work, and then pro-Shattuck's letter in the April 17 issue of and we think our prices pay us very well.

young men; certainly it should do so, but as he winters his fowls in a walnut tree. ost hired men want to earn their wages n the easiest way possible. We all know make better preachers than farmers, and we all know preachers who would succeed better as sawmill men. I never had but sold on an average \$5 worth per month. and read a farm paper, and he aimed to will keep 10 or 12 brood ewes and put evapply the knowledge he gained. I mentioned him in the RURAL WORLD some only keep common sheep, I cannot possitime ago. He was a good hand, but when he went to farm for himself was a perfect off his sheep as "the cook" will from her failure. Four young men from my vicin-ity have attended our State University, and none of them returned to the farm when his term was completed.

MOTH TRAPS .- As a tobacco grower I tried such traps ten years ago as some one reported in a tobacco journal that they were a success. I had three traps set, one with light, and two crocks any corn worm, cut worm and bud worm moths, but only caught three toco worm moths. I came to the conclusion that such traps were valuable for catching some moths, but I found fully as many in the traps where no light was set as in those having a large campaign torch for a bait. A great deal might be done to destroy the June bug, which is the parent of the white grub, by spraying solitary trees along pasture fences with arsenites. I find that these June bugs have a great fondness for leaves of the hickory, and a few minutes spent just at sundown in spraying a tree or two would

kill hundreds of the bugs.
HONEST ADVICE.—I like to read such letters as that from C. N. Crotsenburg, page 121. Such men as Mr. C. make good neighbors and good citizens. How easily he could have boomed his section and painted rose-colored pictures of its advantages, but see where he modestly says "for the small stock raiser, dairyman o professional fruit grower it is almosideal." Such language will not induce the owner of a good farm in the older farm regions to sell out, pull up stakes and start for Howell County, Mo., but it will set the man of small means to thinking of the several advantages Mr. C. speak of when he tells about his country. There is a great future for this great middle south, and if I were to make a change

of robbery is practiced. The county commis ty seeking the job, except that he be a od party worker and in touch with the county board. These fellows "absorb" a large sum of the people's money and at good figures. Fat cattle and hogs are waste about all the rest of :t. SCHOOLS AND TEACHERS.-Our

ownship board, at its last meeting, de-cided to pay our teachers \$40 per month for the ensuing school year; this is an increase of \$5 per month. The increa ne kicking, but it is just, as no eacher can pay his board for an entire year, buy books and attend the institutes and lay up much money on even \$40 per month for seven months. Talking with a man who has taught 14 years a few days ago, I asked him if he had saved any money. He said that he had \$300 in bank, no more. This man spent nearly two years in a training school and several ummer terms at normal schools, vet he has laid up less money than half a do: who get \$175 to \$200 per year. There ought to be some system of pensioning our old teachers from the state funds; such a system is in operation in Cincinnati, I think. A man or woman who spends 25 to 40 years in the service of our people and who serves faithfully should not be allowed to become an object of charity, yet I have known such cases. JERSEYS FOR BEEF.—As we do not make butter for sale in any but a small per year. There ought to be some system

way, we do not always read the Dairy Hired Hands.

Hired Hands.

April 7 came in foot

Editor RURAL WORLD: Last winter I

page very closely, but "Buff Jersey" in
the RURAL WORLD April 77 came in foot
a favorable notice. We keep high-grade
Jersey cows and have no trouble in sellwas making a night trip between two in- ing our steers for very nearly the same stitute points and a young man on the train found out who I was. He came up, introduced himself as a graduate of a steers until they are "long two-year-

state college, and told me that he was olds," but must get rid of them at 12 to 16 months. We sell to the butcher in cour try towns and get the same price per cwt. as is paid for cattle of the regular beef seded to tell me what he knew. Now, I breeds. From an old account book I find am a pretty persistent talker, but I did not get in a dozen words while we trav-eled 65 miles. I did not get a single prac-17 months, \$42; one helfer, 22 months, \$25; tical idea from the young man and I am one helfer, 23 months, \$55; one helfer, 14 not sure that he had any such ideas. I months, \$15.50. These sales were made have since learned that his employer paid from 1837 to 1895. Since the latter date we him six months' wages and let him go. I have generally sold them as veals and at hought of him the moment I read L. H. prices from \$6 to \$8 at four weeks of age,

the RURAL WORLD.

It is by no means certain that a college training will make better farmers of our discussed poultry. He left off the "dis" Now, of all places on earth to winter fowls, a wainut tree is worst; any other nen that are trying to farm who would kind of a tree is better than a walnut. we all know preachers who would succeed eggs since November, while my wife has better as sawmill men. I never had but sold on an average \$5 worth per month. One hand who would sit down at night. He is going into sheep raising; says he chickens, as we have passed the hundred-dollar mark twice. Last year we did not do quite so well; but my sister, a weakly little woman of 97 pounds, sold \$118 worth of chickens and eggs. We do not count the cost of feed, as we use all the poultry and eggs we want for the table, and these sold at market price would pay double price for all feed used.

ANIMALS EATING TOBACCO .- Judge Miller notes the loss of a fine goat from this cause. Almost any animal will eat leaf tobacco, and it will kill cattle, sheep or goats if eaten in sufficient quantity. We have a calf shut up in a tobacco barn, and that calf eats every scrap of leaf that blows or falls into its pen. It is a fine calf and grows very fast. I have heard my father say that a deer would eat a large amount of tobacco with no ill effects, as he had proven with some pet deer he once owned. I have known more than one good horseman to crumble a leaf of tobacco among the oats in the feed box, claiming that it was a valuable vermifuge and I know that horses kept in tobacco barns are not so liable to dis-ease as other horses. Cattle are more susceptible to poison from tobacco than other stock and I have known death to result from them eating no more than four or five leaves. C. D. LYON. four or five leaves. Brown Co., O.

THE SPRING IN NORTHEAST KAN-

Editor RURAL WORLD: The season s far as farm work is concerned, has been very backward, nothing being done until the middle of April toward getting in the crops. Now, May 1, corn planting is in full blast and another week will see many of the farmers done. The oats were not gotten in very early, but seem to be com would certainly see the section that friend Crotsenburg writes of.

GOOD ROADS.—Mr. Editor says that the public should help the farmers to build and keep up the roads, and Mr. Editor says the public should help the farmers to build and keep up the roads, and Mr. Editor says the public should help the farmers to build and keep up the roads, and Mr. Editor says the says t ing finely. Ground seems to have baked was an occasional case of black leg among young stock. Hogs were generally healthy groundless unless in certain exposed local-ities.

There is quite a demand for farm horse just now, good animals finding ready sale selling at good prices in the market. farmers are pushing all stock on hand to take advantage of the prices. All old corn to be marketed has been rushing into the elevators for the past ten days. There is a shortage in roughness on account of the late start of the pastures, which will take all the hay and straw pretty well out of the country. Cattle still on feed, although where pastures are nearby some farmers are feeding roughness in pastures, leaving the animals pick a partial living There will be considerable building

oing on among the farmers this season after the corn is laid by. Barns and houses will be put up and other improvemovement in real estate the past six months. The prices of farms are steadily

SPRING DAYS AT SEVEN PINES.

Editor RURAL WORLD: Spring days n the Flood Plain are real pretty and njoyable. Great fields of wheat embellish the farms, and the grass adds its own beautiful carpet of green. The peach trees are bedecked in their delicate tints of dest pink, and the apple and the plum and the cherry are out in dress parade

niforms of inimitable colors.
THE BIRDS.—Most all class gratory birds have arrived and are in weet voice. The true southern mockin birds are here, and this early coming of so pronounced a variety of sub-tropical birds is somewhat phenomenal. Graceful in flight, beautiful in plumage, modest in manners, and sweet in song are charact stics belonging peculiarly to the true southern mocking bird. In the dense groves during the hour of twilight and a little later, one may now hear the notes of the song sparrow. This bird is retired in disposition, and it delights in thickly shaded and vine-clad trees which will give natural seclusion. Coming along in reg-ular succession, we will soon notice the arrival of the humming bird and the cuckoo. From its late appearing one cuckoo. From its late appearing one would incline to believe the humming bird to be of a delicate and almost strictly tropical nature, yet it is peculiarly hardy and prolongs its sojourn with us until early October. This tiny creature is strictly migratory, and from its delice size the wonder is how it can survi as a mountainous height of ten thousand feet. Yet this is the achievement of the bold little navigator of the air, for Unit-ed States Geological Explorer Russell tells of seeing humming birds when exploring Mount Rainier nearly two miles above sea level, far above timber line and all forms of vegetation. Among our native birds we have the Gold finch; a regular little type of the Fred Funston style. This bird is about the size of the wren, and the male is arrayed in bright gold, relieved with dark. It remains in this latitude all the year, and defies the cold and gloom of the most severe winter.

THE BEES.—At Seven Pines the village of bee colonies came through the winter of bee colonies came through the winter in fairly good order. The month of March and some of April were times of trial for the bees, for the almost constant stormy days were too strong for the flight of Aphis mellifica. During the closing days of April the temperature moved up to summer heat, and this invited the busy bee to come out in search of pollen for the larvae. Sometimes I like to linger near the hives and notice the going and coming of the bees. What an endless coming of the bees. What an endless line, and how they hurry away and hasten into the home when returning. They enter the doorway running, and some of them come in all covered with golder them come in all covered with golden powder. Some miners are extra lucky, it is remembered. The bee prospect at this date averages good, and I am expecting some strenuous adventures in taking down big swarms from the shrubs and trees about the home. One of the choice places for a swarm to cluster is one places for a swarm to cluster is on a gooseberry tree. This kind of a claim or the Cherokee strip just suits my fancy.

THE AGRICULTURAL YEAR BOOK the Cherc for 1900 is promised to be presented to its patrons along during May, and I am anx-lously awaiting the coming of this prized publication. It is, indeed, a valuable work, and farmers should take more in terest in reading the many subjects which Book, in general make-up, is now and has been for some years, a classical volume, and its presence and endorses should characterize every farm h excellent they are. Just now, in this brief

this letter to tell of its many things of interest all related in refined words, but will do so in the near future. Clark Co., Mo. JASPER BLINES. A FRANK ACKNOWLEDGEMENT

Missouri Geological Survey dated 1900. This is a beautifully printed book, and of

I haven't space in

review of books. I wish to

splendid contents.

Editor RURAL WORLD: In your issue of May 1 you call attention to a state-ment of mine in the April Bulletin of the Board of Agriculture, which, perhaps, is capable of conveying an idea not intended by me. You correctly interpret the neaning when you say that I properly include the property in t by the State to develop the dairy interests." I am not only ready to admit, but great deal of good work has been done by he officers and members of the State Daiymen's Association in establishing and fort is certainly the more commendable ecause it has been made, not on account of selfish interest, but entirely for the public good. With a few at work to supplement what is being done by the RURAL WORLD and the State Dairymen's Association, the annual dairy product of the State should in a few years reach the sum of not less than thirty or forty million of dollars. Respectfully, GEO. B. ELLIS.

Sec'y, Mo. State Board of Agl. Columbia, Mo., May 4.

The tide of agriculture is now repo as setting back to New England, and it is claimed that abandoned farms in that

The Dairy.

Editor RURAL WORLD: We are just come up after the oats and peas are cut

issue of April 24 the articles in reference to the Dairy Husbandry bill and the kind words said of me in that connection, for which I return you my thanks. I assure glad to know that the slight service which I rendered in connection with the passage of the bill is appreciated by the dairymen.

desire as a legislator has been always to improve and advance the material interests of the people of the state, and this has only been measured by my ability and opportunity to do so. THOS. W. HAWKINS.

DAIRY MEETING AT STAUNTON, ILL. Editor RURAL WORLD: An interesting meeting of dairymen was held on Sat-urday, April 27, at Staunton, Ill., in the

city hall, which was kindly made avail-

able for the occasion by the Mayor. The meeting was conducted by Mr. Robt. H. Pethebridge, of St. Louis, who gave a lecture and demonstration. The

ing be held at some future time.
REPORTER. MARKETING BUTTER.

An Indian Territory correspondent, Mrs. M. E. Warren, asks us to "give through the RURAL WORLD the best method of marketing pound prints (butter) to pri-

is some distance from the farm to the homes of the customers, it will be hard to deliver the butter in good condition without the use of ice. With ice available, it would be best to use as a carrier a low in parchment paper, each layer of pound judges and pronounced excellent in es more difficult, even

one should study the effect of food on the texture of the butter produced. For in-stance, it is claimed by investigators that cotton seed meal will, when fed to a cow, raise the melting point of butter very ma-terially; in other words, make it "stand up" better when subjected to a high temperature. This being true, it would be well for a butter dairyman who has not a supply of ice, to reduce the need of this by feeding a certain quantity of cotton-seed meal even when cows are in pasture. Care must be taken not to feed too heavily of it-not more than three pounds daily-or a bad effect on the butter will

In setting the milk, skimming, churning working the butter and marketing it, of care must be taken to nullify as as possible all along the line the effect of high temperature by the use of cold water, churning early in the morr ing, and protecting the butter from the sun's rays when on the way to market.

ROPY MILK.

"The ropiness in milk has been ascribed to various causes, such as inflammatory condition of the udder, errors in feeding. etc., but in the main these are not the real causes. In almost every case the viscous condition is brought about through the some form of germ life. All the different phases of this slimy change in milk are not due to action of a single form, but under this head are grouped a series of fermentations, inaugurated by various organisms, but possessing the common peculiarity that the milk is

Spring Cleaning

You are made aware of the necessity for cleansing your blood in the spring by humors, eruptions and other outward signs of impurity.

Or that dull headache, bilious, nauseous, nervous condition and that tired feeling are due to the same causeweak, thin, impure, tired blood. America's Greatest Spring Medi-

cine is Hood's Sarsaparilla. It makes the blood rich and pure

cures scrofula and salt rheum, gives a clear, healthy complexion, good appe-tite, sweet sleep, sound health. For cleansing the blood the best medicine money can buy is

Hood's

not a local trouble. The organism is a much less.

The Missouri Dairy Company endeavors

does not render it ropy or stringy. This germ is so widely distributed that it is a common inhabitant of milk, and on account of the very resistant spores that it forms, it is difficult to eradicate it if it once gains the supremacy in the milk."

| A control of the very resistant spores that it it once gains the supremacy in the milk."

toes to milch cows on the account, as they said, of its making the milk sticky and the cream hard to churn. In the light of scientific development in the last few and the cream hard to churn. In the light until needed. The bottles in which this of scientific development in the last few milk is distributed are carefully washed years, we can now see that it was due to years, we can now see that the presence of the potato bacillus communicated, if not through the stomach of the cow, yet through the presence of the washed and scalded with great care. germ in the stable.-Exchange.

KAFFIR CORN VS. GOOD BUTTER.

The Kansas Experiment Station has received numerous letters from farmers and dairymen asking if Kaffir corn will pro-duce a poor quality of butter. The cause gave a lecture and demonstration. The morning session was devoted to a discussion of the hand cream separator in relation to farm and creamery work, with demonstration of the work of the DeLaval separator, and the handling of cream and milk for shipment and buttermaking. During the afternoon session there was given a demonstration of the method of testing milk with the Babcock tester; also a talk on foods and feeding of dairy cows and calf raising on separator milk. Those in attendance expressed themselves as having been highly pleased with what they had heard, and asked that another meeting be held at some future time.

REPORTER.

If Kaffir corn, which has been such a good yielder and drouth-resister, should be excluded from the ration of the dairy cow, many farmers in central and western Kansas would be obliged to quit the dairy business. This would result in a loss of thousands of dollars annually. Fortunatewate customers."

With no knowledge whatever of local conditions, or of the degree of skill as a butter-maker possessed by Mrs. Warren, it is a difficult matter to advise her. If it experienced a particle of trouble from its experienced a particle or quality of butter. Durather the property of the pro would be best to use as a carrier a box ration. At that time the dairy school was made for this purpose and to be had from in session and we were making butter any of the dairy supply houses. These from the milk of this herd without the adany of the dairy supply houses. These from the milk of this herd without the ad-boxes are made to hold from 60 to 54 dition of any milk from outside sources, pounds of butter in pound prints wrapped The butter was tested by competent prints being put in trays. Provision is made in the center of the box for a square, deep can to be filled with cracked fee. Butter put up in such a box with ice. can be conveyed from the farm to the cus-tomers' homes and even shipped long distances in the warmest weather and been used each year at the dairy school, where it has been saved to use in the suffer no injury. If no ice is available the both with and without milk from other sources; it has been specially sought for by our cheese boys in their effort to make first-class quality of cheese and in no Beginning with the feed given the cows, one should study the effect of food on the exture of the butter produced. For in-

When the season is a poor one for the curing of the crop and the grain has been left on the fodder, considerable penetrat-ing dust arises from the crop when hanfind dust at feeding time. If the feeding is done just before or at milking time par-ticles of this dust, with all the germs that they carry with them, will undoubtedly find their way to the milk-pail and may cause a poor quality of butter. In the intance of the Overbrook creamery, the manager states that the Kaffir corn in that part of the country had all been damaged by rains, and where the feed was the poorest the milk from that farm nade the poorest butter. Indications point to a slight decomposition of the feed. Hay and fodders of any kind con-tain large number of offensive germs. which, if allowed an entrance into the and permitted to multiply rap-

On this point, Russell, in "Outlines of Dairy Rectarglosy," page 22 care, with which we are familiar, points to the fore milking. In this way, Kaffir corn, properly balanced, is one of our best feeds for a dairy cow and should be grown exensively where corn is uncertain

Experiment Station, Manhattan, Kan.

HANDLING MILK FOR CITY TRADE.

A Paper by Dr. H. C. Crowell, Kansa City, Mo., Read Before the Late Missouri Dairy Convention.

Among the efforts of the Missouri Dairy Company, of this city, to afford its pa-trons the best article it is possible to pro-duce, are those directed to the informing of the farmer how to care for his milk.

First-Milk which has a temperature of about 70 degrees F. when first drawn from the cow, should be cooled down to about 50 degrees F., and maintained at that temperature until shipped. The morning and night's milk should not be mixed, as by so doing fermentation is initiated mor quickly and, when agitated by the hand ling necessary to shipment, yields a dam aged or inferior product when it reache the consumer, which often causes no little disturbance of mind, if not of the stor ach, of some precious one who should, by right, have only the best.

It is needless to advert to the care giv en the cows both as to food and drink, fo it stands to reason that the better they are fed and watered the better will be their secretion of milk. The milk may be rendered highly objectionable by uncl methods in the stabling and milking of the cow. When a proper degree of care is not exercised in this direction the milk in some instances, reaches the consumer tainted with the cow odor, which is high ly objectionable to first-class trade.

There is a reprehensible practice induged in by the avaricious producer which should not be overlooked; that is, the use of too young milk. No milk from

changed into a much more viscous fluid. the new milch cow should be sent to marchanged into a much more viscous fluid.

"Nearly a score of different species of bacteria have been found that have this property of turning milk into a more or less slimy fluid. * * * The chief cause of ropy milk that has been found to be present in Switzerland is Micrococcus when the property of turning milk into a more or less slimy fluid. * * * The chief cause tity so mixed. Cows should be cared for of ropy milk that has been found to be present in Switzerland is Micrococcus cited or overheated, which affects the milk in such a manner that its keeping properties are destroyed, or rendered not a local trouble. The organism is a much less.

come up after the oats and peas are cut and will make great pasture. We have anough silage yet on hand for 100 days. The mouths; a good record for a 17-year-old boy.

Monmouth, Ill.

FROM HON. T. W. HAWKINS.

Editor RURAL WORLD: I note in your issue of April 24 the articles in reference and success and peas are cut and will make great pasture. We have not had a case of scours in the past cient. When dried, it possesses great restaint products a six possible. The milk, a foothold in a dairy it is difficult to get rid of it unless very thorough measures are resorted to. * * *

Editor RURAL WORLD: I note in your issue of April 24 the articles in reference and the past of the second of the past of the past of the past of the producer, by pasteurizing all its goods, thus rendering them as nearly san-timely possible. The milk, although it and also for any fermentative changes which may have taken place, as often occurs, especially in hot, sultry weather. If cans of milk are found that are not sweet, they are discarded. The does not render it ropy or stringy. This

forms, it is diment to once gains the supremacy in the milk."

Years ago, we remember of hearing old dairymen object to the feeding of pota-

The question is often asked, why do you go to this enormous expense in Pasteurizing your goods? Our answer can only be because we believe thereby we offer the best product possible and afford as nearly pure milk as can be had.

We are then asked how do you sell it? At the same price as that of all other dealers. Then how do you get pay for the extra outlay in your extensive plant and extra labor? We hope, by producing a better germ-proof article, an article rid of all taint or animal odor, that the public will appreciate our efforts and give us

material support to warrant it.

By Pasteurizing, all the lower orders of germ life are destroyed. It is true we can not destroy the germ of tuberculo or cholera by less than a temperature of 212 degrees F., which would destroy the properties of the milk by giving a cooked product, which would not be desirable for

ADAPTABILITY OF MISSOURI TO DAIRVING

(The following essay, by E. R. Stoutemeyer, of Onarga, Ill., a student in the Missouri Agricultural College, was awarded the first prize in a competition open to Short Course students.)

Normally Missouri is exceedingly well adapted to dairying. Nature has given her everything requisite to become one of the greatest dairy states in the Union. have, but has many in addition.

CLIMATE.-No dairy state has the clinate for dairying that Missouri has. She experienced by the dairy states farther orth, nor the sudden changes in temper ature, which are so detrimental to the dairy cow. Yet it is cold enough, so that sufficient ice may be gotten for refriger ating purposes, nearly every winter

Missouri's climate is very much like that to which the dairy cow has been accustomed in the Channel Islands, and naturally she is better adapted to this cli-Imate will permit the keeping of the dairy cow much cheaper than where she must be stabled and fed a much longer period each year. Take, for instance Wisconsin, a successful dairy state; the dairyman there must incur much greater expense in providing shelter in the win ter, and is also compelled to feed his ani-mals for a much longer period, which adds cost and labor and makes his product more expensive than if produced in this state. Here the temperate climate will allow the cows to run on pasture nearly eight months of the year without grain except in the latter part of the summe

and in times of drouth. If the cost of keeping dairy animals some of the northern dairy states and in Missouri were compared, there would be a good showing in favor of Missouri. Her soil is very rich, producing very abundantly crops of rich grains and grasses Nearly all of the land is capable of being used for dairy purposes. Even her rough hills could be turned into dairy farms This may hardly seem possible, but look at Switzerland, noted the world over for her butter and cheese, where the farms are very small, rocky and mountainous are very small, rocky and mountainous. Pesides Missouri's fertile soil she is well cheap lumber for barns and sheds.

No state in the Union can produce greater variety or better quality of feed for dairy stock than Missouri, and a va-riety of feed is one of the essentials in dairying. By having a variety of food for the cow, and feeding so as to please her taste, the cow may be made to produce much more milk. As to the variety of foods, Missouri is especially noted for her grasses. Blue grass, timothy, and clover do especially well in nearly all parts of the State. Alfalfa can be grown on the dry uplands where other grasses do hardly so well. All kinds of grain and forage crops needed for dairying can be grown successfully in the state. Corn can be grown cheaper and better than in many of

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Missouri also has the advantage over all ing her cotton seed and linseed meal cheaper than they, as a considerable quantity of both is produced within the State. Missouri can raise every food necessary for the dairy cow and can produce it much cheaper than any of the dairy states. Contrast her with New ryman there must pay several cents more

per bushel for his corn than he does in Missouri. The price of pasturage, hay and all other feeds are also higher; thus enabling the Missouri dairyman to produce his dairy products much cheaper than they can be produced elsewhere. CHEAP LAND.-Nowhere can the dai-

He does not need so much capital to buy him a farm and start in the business as where the land is high, as in some of the eastern dairy states. And as the soil is richer here than there, he will not need to pay out so much for fertilizers. Take New York again for example Her people with their high-priced lands have built up an immense dairy business and are carrying it on very profitably under less favorable circu people of Missouri, with their cheap d and fertile soil, temperate climate, good water supply, excellent pastures and large hay and grain crops, can by using e make dairying very intellige

MARKETS .- To make dairying a suc products. No matter how well the country may be adapted, naturally, if no market is available, dairying can not be made

market. On the west is Kansas City with splendid market and on the east St. Louis, with her large manufacturing pop-ulation, who are large consumers of these products. Besides these two large markets there are a great many smaller cities well distributed over the State, making good local markets. There is also a market for her products in the West and Southwest, and being closer than the dairy states, she could easily compete with them. If these markets are not satisfac tory she is not far from Chicago, the larg-

est distributing center in the West. It is said that Missouri only produced about one-half of the butter she consumes, the remainder being shipped in from our sister states. Surely if they can produce these products and send them to our markets and make a profit, the home dairyman can make a much greater one There is very little danger of over-sup-ply, as good butter will always make a market for itself. If only good butter could be put on the market, the consump tion would nearly double in a single year It is only the poor article which can not find a good market.

As for transportation Missouri is well supplied with railroads, they being well distributed throughout the State, with only few exceptions. Her rivers also supply cheap transportation, having about ,200 miles of navigable waters.

Missouri has an advantage in her loca tion over many states. She is nearly centrally situated in the United States being so she can ship her products in all directions to good advantage.

Iowa is the greatest butter producing state in the Union. She has 780 creame ies, only two counties in the state being without them, which produce about onetenth of the butter made in the United States. Iowa has no natural advantage Iowa has a less temperate climate and does not have the timber and can not raise quite as great variety of dairy fo

WHY NOT IN THE LEAD?-We have een how Missouri is naturally better adapted to dairying than many of the leading dairy states. The question will then arise: "Why is she not in the lead as a dairy state?" One of the main reasons is, that the average Missouri farmer loes not take readily to dairying, and is which he was engaged, before there were so many railroads through the State. Then they made the most of the money

long distance to market. Another is the ignorance of the subject of dairying on the part of the farmer. He may have a good knowledge of caring for beef cattle, yet not know anything about the management of the dairy animals. reason so many farmers who have because they are ignorant of any system atic methods of dairying, and after trying it for a short time in a careless me

There are very few instances where there has been a failure in dairying where knowledge and skill have been applied, as in the leading dairy Where the leading dairymen of Missouri have exhibited their products in competi-tion with those of other states, they have often carried off the honors, thereby proving that Missouri can not be sur passed in quality of products produced by any of the leading dairy states.

We must conclude, then, that many of the farmers at present are not adapted to dairying; but as the population of the state is increasing very rapidly there will be more of a tendency toward smalle farms, and more interest will probably be taken in dairying. No doubt dairymer from other states will see the great possibilities, and will come to this State to engage in this industry.

As to the number of cows, Missouri is fairly well supplied, having a greater number than some of the dairy states. She has some very good herds of dairy cattle and if the dairy industry were developed would within a short time have a large number of fine dairy herds, as they could be brought in from some of the neighbor ing states, or with the number of cows that are here now we could in a short time build up good dairy herds.

ADVANTAGES OF DAIRYING.-Ther are decided advantages in dairying ove general farming. It is much easier to pas-ture land that is hard to farm, and by keeping dairy cows, convert the herbage into dairy products. Instead of the soil ecoming exhausted after a time, as in eneral farming, it will be getting richer nother advantage is that the incom from the dairy herd will be coming in every week, while the stockman and the farmer must wait some time for the re-turns for his labor.

The dairy cow is a much more eco ical animal than the beef steer make the claim that she will produce a pound of butter as cheaply as the stee

she will make more than double the profit that the beef steer will on the same int of feed. It will be readily seen that dairying will give more and better returns than any other branch of farming n which a person can engage.

The beauty of dairying is that a perso

THE EFFECT.—Suppose for the mo-ment that Missouri were a leading dairy state, see what the condition of the State would be. There would be a more intelligent class of farmers, as to be a successful dairyman a person must use a considerable degree of intelligence. There would be smaller and better farms and more of them, more and better farm buildings, closer neighbors in the country, better schools and churches and better roads over which to haul the dairyman's products to market.

No doubt before long when the State beomes thicker settled and the people begin to realize the natural advantages for dairying, there will be a marked advan ment in this profitable branch of farming throughout the State and then Missouri can truly be classed as one of the leading dairy states.

WATER IN BUTTER.

While the percentage of water in butter may, according to the system of manufac-ture, vary very widely, the limits, 10 to 15 per cent, will represent the proportion usually present; indeed, 12 to 14 per cent s the usual amount in well-made samples. Though within the above limits the water content per se does not appreciably affect the flavor of the butter, yet flavor may, to certain extent, be affected by the cirumstances under which butter is narily made—wetter or drier. For exam-ple, a butter may contain a very lew perentage of water; still, if that water is mainly derived from the buttermilk sample will necessarily contain an al.nor-mal percentage of casein, which will cause the butter to have a fuller flavor and aroma when freshly made, but will ver soon after cause chemical changes of a very detrimental nature to take place. Therefore, flavor and keeping quality in butter depend much more upon the per centage of casein (or buttermilk) porated with the water than upon the ual amount of pure water.

In the manufacture of butter the most important point to aim at is keeping qual-ity. It is frequently the case that butter hich has been churned into a lump, and which is full of buttermilk, tastes better the day it is made than that which ha well made and thoroughly washed; ut the former very soon loses its excess of flavor, and in a few days becomes quit rancid. While a full, high flavor in portance if gained at the expense of keeping quality. It is, therefore, strongly to ended that throughout

process of buttermaking-churning washing, salting, and working-the grea aim should be to secure the finished prod-uct free from all excess of buttermilk.—

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Respectfully, Mrs. T. J. Winders, Malta, Ills. nitrely run down and troubled with severe pains in my back, requested to try Micro-Germi, and have now taken three botam happy to say it has done me an amount of good, and I will by recommend it.

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me such a good appense. Owen Davis, Iowa City, Iowa.

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THE MOTH TRAP QUESTION.

We give place on this page to two co munications on the subject of moth traps. We have a second article from Mr. Har-rington, and one from Mr. Hazeltine which we are requested to publish; but not being able to see how any good can come from using our space for that pur-pose we cannot comply. Mr. Harrington and Mr. Haseltine attempt to refute Prof. Stedman's statements made in the communication from the Professor, published in the RURAL WORLD of April 17, but there is too evident a lack of knowledge sect life on the part of Messrs, Haror insect the and the second representation and Hazeltine to justify us in giv-ing space to the additional articles.

Great stress is put on the efficacy of the

lantern trap to catch what is called the which Mr. Harrington says is worse than the codling moth, and of which he says he caught a bushel. Prof. Stedman identifies this "stinging fly" as non fly which, he says, never stings fruit, but is parasitic on other insects, laying its eggs in their bodies and thus causing their destruction.

Thus the lantern trap, instead of being

the orchardist's ally, is his enemy through the destruction of the injurious insects' worst enemy, the Ichneumon files. Secretary Goodman's note of warning

HORTICULTURAL TALKS.

should be heeded.

ALWAYS SOMETHING NEW .- A few days ago one of my sons called my at-tention to the blossoms on a peach tree that I pass several times a day without being attracted to it. He asked whether I noticed anything peculiar about it. On l observed the peculiar dark color of its blossoms, darker than any in the score of trees in the lot. The brilliant color not the only attraction, for it is semidouble. Whether it is a seedling or a bud-ded tree I cannot tell, but I know that it bore excellent peaches last season and of a good size. It will give me pleasure to distribute buds of this when budding time comes, if spared so long.

BARBERRY HEDGES .- H. B. asks how to start a barberry hedge, if it is grown from seed, when it must be plant-ed, and where seed or plants can be pro-

Gather the harberry seed in the fall: mix in sand and leave out doors to get the rain, snow and frost. Plant six inches apart in a row in the spring and cultivate cleanly, and you will soon have a hedge. The reason that seedmen don't of the mycellum can be detected in the advertise it is, perhaps, on account of the charge made that the barberry bush is the crown. hedge. The reason that seedmen don't advertise it is, perhaps, on account of the charge made that the barberry bush is eding ground of the rust that sometimes destroys other crops, like wheat

Mr. Jewett, don't fool any time away in trying to grow onions in this part of the country. There is nothing in it. That seedless persimmon, you ask about, that I mentioned a year ago, is not seed-less, but nearly so. It is the best I have bearing here now. I have no trees to bear fruit here.

GRAPE CUTTINGS .- J. Jackson wished to know how to set out grape cuttings to get them to grow. He reports having set them out several times and made fail-

Prune your vines late in the fall. Make the cuttings eight to ten inches long. Cut off with a sharp knife one-quarter inch below the lower bud, sloping about at right angle with the bud; one-half inch in like manner above the upper bud. There are usually three to five buds on an eightinch cutting. If it is very long jointed sometimes there are but two. Tie these in bundles of 25 to 50, and bury them in the ground six inches deep. In the make a slanting furrow deep ough to lay the cuttings in so that the upper bud will be just even with the surface of the soil. When filling in press the earth firmly until near the top, when the during summer. Of the ordinary varieties, I can grow 95 per cent in this way.

Mr. Weaver, the yellow flowers you sent me are the Yellow Flowering Missouri rant. It is a sweet-scented early flow-I have it in bloom here now. The fruit is of little account. Some years ago a firm advertised it as the Crandall Currant, and it was to grow as large as common cherries. My plants turned out to be the old native Missouri Currant, that I had got from here when I lived in the East, 50 years ago. Its beauty and fra-grance are all right while they last, but they are short lived. The bush suckers and soon makes a bed of plants if allowed free will. SAMUEL MILLER. Bluffton, Mo.

WHAT CAUSES THE TREES TO DIE? Possibly Root Rot.

Editor RURAL WORLD: Our experience in raising fruit trees has been a strange one. As previously related, we and cultivated the year before, thus gradually extending our acreage of fruit as the land was cleared. The trees were thrived well for two or three years from each setting, when many would die. We reset with the same results, and it has continued in that way. Can anyone give a cause for this and suggest a remedy Effingham Co., Ill. DYPE.

Effingham Co., Ill. DYPE. It is quite possible that root rot is the cause of the trees dying, as was explained in an article published in our issue of April 10, under the head, "Look Out for

Stillwater, Okla., has published a bulle tin summarising an investigation of the root-rot disease which is destroying many fruit trees in the orchards of the terri-The disease has been noticed in localities and seems to be confined ds that have been cleared of tim-

ber before planting to trees.

"The symptoms of this disease are so characteristic that no one should experi-ence any great difficulty in correctly di-agnosing any suspected cases. Perhaps the most characteristic effect of the attion of gum about and from the crown of the diseased trees. This flow of gum all roots of such trees remaining in the occurs in maple, peach and cherry trees and is reported for the apricot tree. It frequently happens that the amount of this gum to avoid the carefully burned surface of the soil. this gum to exude is so great that it cemented soil about the tree. In there is much doubt if their application to

IMI

many cases this mass of gum cemented the soil will effectually prevent the spread of the mycelium through the soil free of cast about the crown and larger roots diseased trees or stumps.

of the tree. The yellow coloration of the leaves is The yellow coloration of the leaves is cides are apt to lose their effectiveness in usually one of the prominent symptoms of the disease. In many cases, however, with other things present in the soil. the leaves wilt rapidly during the grow-ing season, instead of becoming yellow. This rapid wilting of leaves is the first This rapid wilting of leaves is the first from mixing a large amount of wood external evidence afforded that the root system of the tree and consequently its absorptive ability have been greatly reduced.

duced.

The groups of mushrooms found about the base of the trees will afford the most positive evidence of the presence of this disease. But unfortunately this evidence comes too late for the application of any remedial agent; for the mushrooms sellow and suggested and further tests must be made before any value is ascribed to them as preventives of the further spreading of the mycellum.

And though thorough cultivation of the soil is always to be recommended for other reasons, yet this may tend to great. dom appear about the crown of the tree until the disease has so far progressed that no preventive or remedial measures can be applied.

can be applied.

The fungus of this type is well provided with means to insure its rapid distribution throughout large orchards. The spores that are produced in such large mbers are easily scattered about and each one may, under proper conditions, give rise to a mycelium and the typical sporophores. Perhaps the beetles that are often seen eating the old pilel are of some value in distributing the spores, but this point needs some further investiga

The most fertile source of infection is certainly found in the several sorts of mycelial strands produced by this fungus. The subcortial mycelium in an old stump or even a diseased tree may give rise to the purplish-black rhizomorphic strands and these will grow out in the soil to a considerable distance. In one case the au-thor was able to trace these subterranean strands for a distance of about ten feet noticed anything peculiar about the popular about of these same strands was followed, at an observed the peculiar dark color of its average depth under the surface of the score soil of ten inches, for about eight feet, where it was found entering the cortex SOUTHEAST MISSOURI FRUIT NOTES of a living "Ben Davis" apple tree. No the other roots of this tree were dis-sed, and it was plain that the first entrance of the mycelium had been made at this point, out on one of the small oots at least six feet from the trunk of

the tree.

Though the first entrance to the tree is generally made by the mycelium through the cortex of a small root, yet cases were found in which the mycelium had evident-ly entered the crown of the tree first and then spread out through the smaller roots and up into the trunk. As a rule the mycelium does not grow up in the trunk above about three feet from the

REMEDIES.
The greater part of our knowledge concerning the proper remedial measures to be applied against this and other wood destroying fungi is derived from the wide destroying fungi is derived from the wide experience of the foresters of Europe. Among the strictly remedial measures none are of greater importance than the isolation of diseased trees by ditching. single tree in the midst of the orchard sell. I have two new ones that I am testing that are said to be seedless. We will have more to say of these when they the subterranean mycelium strands. This ditch should be dug at a distance of about ten feet from the tree, i. e., with a diameter of about twenty feet. The ditch should be about one foot wide and about two feet deep, with vertical walls. same measures are to be adopted to protect a group of diseased trees that are found in the orchard. In this case the ditch may be dug so as to include all the trees in the group. It is possible that the burning of brush in this ditch will kill the rhizomorphic strands and prevent further spreading. So far as the author is aware, this method has never been practiced to any great extent in America, though in Europe it seems to have prove effective in combating this and similar

It cannot too strongly be insisted upon that all fruit trees that are found to be diseased should at once be removed from the orchard. Care must be taken in such cases to remove and burn not only the trunk, but all the larger roots and especially those diseased. Perhaps a tree will bear salable fruit after the mycelium of this fungus has entered its root system but it is a near-sighted system and poor business to allow such a tree to stand when it is remembered that thereby all the other trees in the orchard are being

the other trees in the orchard size.

Too great care cannot be taken to avoid cutting or otherwise injuring the roots of the trees by plowing or other cultivation. Though the mycelium of this fungus is able to enter the cortex of perfectly healthy roots, yet its progress as ignal.

Second—Some of our members used lights in the orchards last summer and sent specimens to Miss Murtfeld or Prof. Stedman for examination, and they allowed as I ever saw, and nothing but so that there were no codling good as I ever saw, and nothing but and they have invariably some of our members used lights in the orchards last summer and sent specimens to Miss Murtfeld or Prof. Stedman for examination, and they allowed there were no codling good as I ever saw, and nothing but a few of the professions as the there were no codling good as I ever saw, and nothing but a few of the professions as few of the professions as final. tered the roots through wounds made by the plow in cultivating between the rows. Attention has frequently been called to a practice among some fruit growers of placing in the bottom of a hole in which they are about to set a tree, a quantity of chips from their wood pile. In many of these chips there are sure to be found the land was cleared. The trees were were kept clear of destructive insects and the some of the mycelium of this fungus and land cultivated. The trees grew and the introduction of the disease into the orchard is the result of this practice in many cases. For it is a well known fact that each small piece of mycelium of this fungus is capable of remaining dormant for long periods and of again producing, when placed under proper conditions, the mycelium and even the normal sporo-

phores of the species. It was early found in these investiga-tions that the disease was largely or enirely confined to those orchards that were planted on recently cleared timber land. In fact, the disease has never been reported in this Territory, from orchards planted out on real prairie soil. Subsequently investigations have afforded abundant proof that the fungus described in this Bulletin is common as a parasite, and also as a saprophyte on various spe-

cles of oak in this Territory.
Old oak stumps or even dead oak roots remaining in the soil are apt to become fertile sources of the infection of the healthy trees planted in that same soil. From the above it follows that it is the part of wisdom to remove all old oak

ntly happens that the amount of sum to exude is so great that it with the soil about the base of ee to such an extent as to form a surface of the soil. From the nature of the disease the appearance of the soil.

probable from the fact that these fungi

It is very doubtful if any great goo will result from "liming" of the soil of

other reasons, yet this may tend to great-ly reduce the spread of this disease. The thorough cultivation of cleared timber land in other crops before planting an orchard is, of course, to be commended. Perhaps in this fashion the fungus may simply be cultivated out of existence. In view of all that has been said it is

plain that it is not advisable to replant trees in holes from which diseased ones have just been removed unless perfect precautionary measures have been take o rid the soil of all traces of the myceli And it is even doubtful if new trees thin and it is even to planted out between the ows of diseased ones.

And finally all sporophores that are

ound should be burned. The search for disease resisting varieties will probably prove a failure and is a method that has similar cases not yet proven itsel entirely practical. The fact that this fungus and other similar ones are found is parasites on such widely different spe-cies as noted above would of itself dis-courage the attempt to secure a disease esisting variety."

Orchardists who have lost trees because of this disease are requested to communi-cate the facts to the experiment station at

Editor RURAL WORLD: In my fruit notes of April 15 it reads, I treated the parren pear tree to 112 gallons of salt. Lets cut that down a little. It should have ead one-half gallon.

At this writing, April 29, the pear, peach and plum trees have most all shed their bloom; the early cherries are now in full oloom; also the strawberries.

We had some pretty severe weather while the trees were in bloom. There were three white frosts, the ground froze a little and ice formed in earthen ves sels in northern exposures about as thick as paper. The weather turned warm in plenty time before the bloom dropped for the insects to fly both night and day to help pollenize the fruit blooms and I think we will have plenty of fruit of ail kinds. Some growers claim their strawberries were badly damaged, but ours being in a sheltered spot, protected by heavy timber on the north and a heavy coat of dry grass as a natural mulch, are apparently uninjured.

The new beds are in fine condition Being cultivated and hoed they are per fectly free from grass and weeds. They are also blooming, will set and ripen frui if allowed to, but this is not practicable for best results. It will tax a new set plant reverely to ripen any number of berries, if not entirely take its life. Th berries at best on a cultivated bed would be gritty and unfit for use, and I think best to remove all fruit stems early and best to remove all fruit stems early and let all the growth go towards making s strong, vigorous plant for fruiting next year. Our work laid out for this week is spraying the vineyard and plum trees and planting the musk and waterme ago in blue grass sods placed in the hot ds, grass side down. E. W. GEER St. Francois Co., Mo.

THE MOTH CATCHER QUESTION.

Editor RURAL WORLD: Letters are coming in daily asking about the use of the Hazeltine Moth Catcher, and these in-quiries seem to demand a statement of the case as far as my experience goes and from the experience of others who have written me.

First, there is no doubt that light will attract hundreds of night flying insects, but will it trap the ones we are after, the codling moth, curculio and gouger? This question has been put directly to Miss Mary E. Murtfeldt and Prof. J. M. Stedman at a number of our state meetings,

a codling moth or curculio

to catch the insect pests is an old experiment; I tried it a number of years ago,
until I was assured by the results that I
was not getting the insects wanted. This
plan was in great popularity about 35
years ago in Michigan, and there we also
satisfied ourselves that we were not getsatisfied ourselves that we were not get-

have still a more serious question than the insects and that is the fungous dis-eases. The apple scab and bitter rot do many times more damage to our apple trees than do the insects, and we can reach them only by spraying or dusting with the proper materials, at the proper times. While we are doing this we can also use the poisons for insects in our

spray, with very little additional expense Fifth-No one would be more delighted than myself, and the entomologist of the state, and the members of the Horticul-tural Society, if all that is claimed for

trap lanterns in the orchards were true.

Therefore, it seems the best thing I car do is to issue a note of warning to all about this matter, and at the same time to ask those who do use these "catchers' to do so in an experimental way only, and to send some specimens of each night's catch to persons who can and will give correct information of what insects are caught, and then we will get the whole truth. L. A. GOODMAN, Sec'y. L. A. GOODMAN, Sec'y.,

Mo. State Hort. Society. 4000 Warwick Blvd., Kansas City, Mo.



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GERMAN KALI WORKS, ON NAMES S. New York.

93 Nassau St., New York.

sands of the codling moth and a worse and more injurious insect, the stinging fly, an insect which stings the apple aftr it is as large as a walnut, and that ruins so many apples by making them un-salable. I am satisfied that I caught a bushel of them. This is known to be an Another statement which Prof. Sted-

nan makes is, "All species of night flying nsects are not caught in traps by any neans, the vast majority of them being enelled by light. As a matter of fact comparatively few injurious insects are eaten by birds at all."

I would say that the only kind of good

sect that could be found in an orchard, vineyard, field or garden, would be a dead one. I can not imagine the character or kind of an insect that would give vigor to the tree or size and color to the fruit. We can remember well in this community that 40 years ago when we had an abund-ance of birds we had perfect fruit, and we now ask ourselves, Why? And the an would be, that on account of the great number of birds the insects were caught and destroyed, therefore protect-ing the fruit crop. As soon as the birds were driven out and killed off by the increase of our population we were forced to adopt some artificial remedy to take the place of the birds to destroy the insects, and the question now with us is, which is the best and surest method to be had, a poison to kill them through the method of spraying or destroying them

by means of lantern traps. My experience in spraying has not proved a success or satisfactory. My at-tention being called to the lantern traps tention being called to the lantern traps last year I tried them, and they proved a do not arrive at the planter's home in ess and gave me satisfaction. In the ard in which I used the traps last season my crop was more free from dehave some of both kinds of seed now fect and worms (except bitter rot, which sprouting that were planted several days I am satisfied is atmospheric or climatic) than any crop I have raised in six or

eight years.

I think the traps should be set according to the season, about mating time of the insects, and should be kept in the orchard for 12 or 15 days, then leave them dark say the same length of time-then keep them operating 12 or 15 days again, then leave them dark 12 or 15 days, and make the time for the last setting of the traps be governed by the catch in your traps. From my experience I am satisfied that when properly tested that greater be will be derived from the lantern t than from any method of spraying.

As was stated by Prof. Stedman, I also have no interest either in the manufac ture or sale of any traps, and have sold my spraying outfit, so have no further in-

Stedman for examination, and they always reported that there were no coding moths or curculio found in the collections.

One of our members, Mr. F. H. Speakman, used a whole barrel of coal oil and a great number of torches, without catching a codling moth or curculio.

The crop will be light, and at least ten days of the control of th crop will be light, and at least ten days Third—This plan of using lights or later than usual. Raspberries, blackorches over oil and water in the orchard berries and dewberries are good. Apples

was not getting the insects was not getting the insects was not getting the great popularity about 35 plan was in great popularity about 6 plan will be given in great popularity about 6 plan was in great popularity about 35 pl and by the total that some claim they do, we have still a more serious question than the insects and that is the fungous disgood many will be shipped by express to near-by markets.

D. S. HELVERN.

GRAFTING WALNUTS AND HICK-ORIES.

At the Department of Agriculture Prof. able attention to the nut-bearing trees, great difficulty has been encountered in the propagation both of walnuts and hickthe propagation both of wainuts and hick-ories other than from seeds. In some of the kinds a very small percentage of unions in grafting is considered satisfac-tory.

There are numerous fine varieties of here nuts, and like the varieties of other fruit trees, they can only be perpetuat and increased by grafting; therefore, the value of this work will be much appreci-ated by those who are engaged in nut cul-

the immediate care of Mr. W. P. Corsa, the author of the book on nut culture. The method adopted is peculiarly his own, and what may be styled grafting

own, and what may be styled with the aid of an incubator.

The principal object to be attained in order to secure the success of the operation is to retard the process of decay occasioned by mites, insects and fungi long ough to allow of callusing. The main ficulty has been in getting the cion and ock to callus quick enough; the experi-ents lately carried on show that the calstock to callus quick enough; the

racts are formed in the seedling; that is, Editor RURAL WORLD: I saw an article in your paper on "Moths and Moth Catchers," written by Prof. Stedman, in which he says he is receiving hundreds of letters in regard to the trap lanterns, which are used in the orchards for the purpose of catching insects which are the enemy of the orchard and fruit. He states that the codling moth and other injurious insects to the orchard and fruit could not be caught in traps.

That may be Prof. Stedman's event.

The cions are ordinary methods of in those cases where moderately thick tap roots are present, the cleft method is chosen; but the method of grafting used matters little if ordinary care is observed in fitting the clon to the stock, at least on one side. The cions are securely tied to the stocks with waxed cord and either wrapped in bundles with moss around them, or packed in laws around them, or packed in laws around the from its laws. near the position occupied by the scars left by the seed leaves. The cions are put on by any of the ordinary methods that the codling moth and other injurious insects to the orchard and fruit could not be caught in traps.

That may be Prof. Stedman's experience, but I desire to say that I put out these traps in my orchard last year, which I kept setting at different periods of the season, in all about six weeks, and I know that I caught, not hundreds, but thousands of the codling moth and a worse in three weeks. three wecks.

Most of the stocks with shortened tap roots will be small enough to go into six-inch pots, the idea being to encourage the production of roots as early as possible after the union has taken place. When a few leaves have been made the potten plants are gradually hardened off and ventually put in a frame where they

Bo far as the experiment has gone about per cent of the clons have united with he stocks, and they appear in a fairly healthy condition. The failures appear to be the result of the ravages of certain mites, but further investigation is neces sary before these little animals can be determined to be noxious or otherwise.-G. W. O. in American Gardening.

WHY NEWLY TRANSPLANTED

It has been claimed that not half of the rees sold by nurserymen live to make bearing orchard. This may or may no be true. I think it paints the picture too dark, says a writer in an exchange.

There are nurserymen who are not as particular as they should be in handling Some men are very easy about everything. A nurseryman who hopes to succeed must be on the alert to protect his trees from frost, from wind and sun and must handle with care at every and must handle with the arrival at the home of the planter. The anxious nurseryman often shortens his life by his efforts to lengthen the life of his products good condition, and this may be one cause of failure, there is no doubt that the prime cause of failure is the lack of ex-perience on the part of the planter. Thrifty fruit trees should live when

ated and make successful ortransplanted and make successful or-chards. If they do not, something is wrong somewhere. Surely the season has such to do with success. If summe much to do with success. If summer comes quick on the heels of winter, ac-companied by dry weather and hot winds, success will not be so certain. Particu-larly is this the case with strawberry and liack-cap raspberries and other delicate

Possibly the prime cause of failure in ransplanting trees is that the tops, that the branches, are not cut back sufficient is the branches, are not cut back sumcent when planting is done. Remember that a tree sent from the nursery has perhaps a thousand buds on its branches. It is therefore reasonable to suppose that if half these branches are cut away, leaving only five hundred buds, those remaining will start more successfully than if all the property and the second to remain. As a matter of fact five or six buds on the top of a tree are sufficient to form five or six branches; therefore no harm can be done if the tops allowed to remain. As a matter of of all fruit trees were cut back so as to leave only four to six inches of each

ing the tree is only two feet high, without

Rose bushes should be cut back severely, never leaving more than one foot of can and only one good strong cane. The same may be said of grapes, as has been said of roses. Raspberry and blackberry plants should be cut back to one foot. There are some ornamental trees which

vill not bear cutting back, among them being the Cut-leaved Weeping Birch. Maples, elms and others of that class can be cut back severely. If all the branches were removed and the top cut off abruptly at any height the tree will succeed. I remember when a boy digging mapi from the forest, which were twelve feet high and branched at the top, I sawed those trees off at the top, leaving only a straight pole, six to eight feet high. The trees immediately formed a handsome top, although there was not a branch to be seen upon them when planted. Trees should be planted in finely culti-

vated soil: likewise fruit plants and orna mentals. It sometimes happens, however, that it is desirable to plant these in a such as the pecan, shagbark and shell-bark hickories; also the finer varieties of the English wainut. The results have so far proved eminently satisfactory, and it is hoped will ultimately prove of great away on the borders of the excavation, industry. Most of the fruiting nut trees of this country are of seedling origin; there are only a comparatively few fruiting grafted or budded plants. Heretofore process and the process of the process there without loosening the adjoining soil the tree has small chance of living. A

SEEDS STOCK PEAS CHAS. E. PRUNTY, MAIN AND MARKET SAINT LOUIS. STRIPPED BLUE-GRABE SEED WANTED

tied by those who are engaged in nut culture. 500 Dollars For One Ear of Corn.

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I notice in the public parks of Rochester, where valuable trees have been planted, and where each tree is expected to represent hundreds of dollars, that the soil over the newly transplanted tree is mulched with four to six inches of hay or straw for a distance of three or four feet on every side of the tree, making an ex-panse of five or six feet in diameter thus heavily mulched. Can you not be convinced of the superior opportunity of

first placed around the roots. The earth last placed on the surface may be left loose. It is not too late now to cut back the branches of newly planted trees, etc.

A BIG MISSOURI ORCHARD.

Marshfield, Webster County, Mo., April 9.—In yesterday's "Globe-Democrat" a eavenworth, Kas., correspondent in de-cribing ex-Gov. Morrill's apple orchard of over 800 acres, containing 64,000 trees in rows a mile and a half long, says it is "the largest distinctive apple orchard in he United States, and, so far as known, in the world." In Webster County, Mo., thirteen miles southeast of Marshfield, is the great Winans fruit farm, covering 760 acres of apple trees, some of the rows being just two miles long. Immediately adjoining this are three other orchards covering 480 acres, the four aggregating 1,240 acres of apple orchard, in a compact body, nearly square, containing over 86,000 apple trees, just coming into bearing. In addition to the apple trees there are in these four orchards about 40,000 peach trees and about 10,000 pear trees Seven years ago the entire area roken black oak and black jack forest. W. S. THOMPSON.

> The Hpiary. BEES PUNCTURING FRUIT.

In answer to the criticism of R. E February 9 last, which appeared under the caption "Do Bees Puncture Peaches." n which Mr. H. quotes my statement, "I don't believe that the bees should be charged with carrying the infection,

ceding on our finest peaches."

The word "puncturing" should have en in quotation, as I had in my mind the arguments pro and con in the Utter vs. Utter case, as I read in several ex-tracts of the proceedings, one of which was that "the bees punctured the fruit o that the juice trickled down over the runk and branches and killed the trees." I was amused over these statements, the opposite of which was that "bees use their tongues to lap nectar same as a dog aps water," and that "the bee's tongue is too soft and too tender to be used as an instrument for "puncturing," "cut-ting" or "tearing" the tough skin of the grape or peach, consequently it cannot e held ac ountable for doing the work

It is an old question and one that will probably never be settled altogether, whether that delicate tongue is the only means the bee has of feeding, or getting through the skins of fruit or not; we know that they do get there, and through the skins of sound, but very ripe and tender skined peaches; further I am not prepared to speak from personal knowl-

edge.
"Any beekeeper can easily prove the the tree, but if the branches are cut back one-half their length it will help them one-half their length it will help them much in the ordeal of transplanting.
Planters of peach trees invariably cut away every branch close to the trunk, and head back the top so that after plant.

I and head back the top so that after plant.

Selection of the ordeal of transplanting.
We notice some persons are not fond of children, especially other people's children, especially other people's children, especially other people's children. come about, and notice all their faults; but when they come to have children of their own they less their now they less that the best line arms. The insects head in; half the best line arms.

up for the bees.

However, I have no quarret who hees; in fact, have kept and cared for light on a peach, look it over, carefully bees the greater part of my life, and alsurveying the prospect, and then selected the prospect and the selected the sel though I have none now, I am always glad to see my old friends around. They never sting me, either, and they are wel-come to a share of the fruit; I still think never sting me, either, and they are wel-come to a share of the fruit; I still think they deserve something in return for other good services they render. ther good services they render.

Bees, like children, are apt scholars. They both get their education by observation and experience. There is as much difference, too, in bees as in children; some are more intelligent than others; the mingling of the different races may have had its effect in their development My observations many years ago taught me that nearly all domestic animals learn, by observation and experience of their own accord (no doubt all living creatures

In this connection I will quote from an article that appeared in the "Nationa Fruit Grower" of January 15 last, cred ited to the "Rural New Yorker." The writer says: "I am among those who believe that the honey bees can and do

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four bees would be gathered together at a certain place polishing the convex sur-face of a perfect grape; the bloom was taken off at this place. They did not leave their position during my stay—say a minute or two. A step forward brought though they are guilty of puncturing and teeding on our finest peaches."

The word "puncturing" should have the bees had evidently pushed the underlying pulp to one side, and in place of a convex surface it was concave. Further on a small hole was worn through, while at the fifth grape visited the bees were fast reducing the berry to a shell. What were the bees there for? Was it just some little game they were playing? or, did they know what to expect as the re-

sult of their labor. "I have thought that perhaps their was an acquired one, and not natural.' If Brother Huntington had been here ast summer and sat with me on a stepladder in the spreading top of an old peach tree, on which were some unusually fine Alexander peaches fully ripe, but which I was anxious to have remain as long as possible in order to have them fresh from the tree, as a treat for some of my folks from Philadelphia coming home on a visit, he could have learned something by observation, perhaps, that he has failed to get by reading. "Book

ocular demonstration are equally import-

But to the bees, they were there every but when they come to have children of their own they lose their prejudices against the small people, and not only overlook their faults, but take up the defense for the rude pranks perpetrated by the young rascals.

As a rule those who have fruit and no bees are annoyed by them, and the ones who keep bees and have no fruit, will take up for the bees.

By The insects head in; half the body in some; in others the business end of the bee barely visible, and in some instances as many as three or four bees inside of the excavation. So I began to watch them, first removing all the fruit could see that was "punctured," but then, or that had holes "worn," "sucked" or that had any "dugouts" in it, and I was surprised to notice the facility with which the little creatures would get However, I have no quarrel with the through the skin of the fruit. One would ing a tender spot, commence operations by bobbing its head up and down a few and pretty soon another, sometimes more, would join, apparently helping to enlarge the entrance, but no sooner had one got-ten its head into the opening than the rest would leave until the first one was inside, when another would come and try to get in after it, without any ap-narent effort to enlarge the entrance for parent effort to enlarge the entra-the time. At this stage I left wel fied with my discovery. B. L. RYDER.

> BE READY FOR THE SEASON .- Do not delay preparation for summer work until the season is on you. It is not profit-able. Order your supplies early, remembering that if you wish good ho and really good material, you should be satisfied as to the honor of your dealer. Cheap prices often mean cheap and isfactory supplies.

Mothers will find "Mrs. Winslow's Southing Syrup" the Best Remeny for Children Teething:

Live Stock.

HEREFORDS. May II and 22—C. A. Jamison, Peoris, III.; S. H. Godman, Wabash, Ind.; and ethers, at Chicago, III. ABERDEEN ANGUS. March 14.—H. M. Gittings, Disco, III. March 30.1.—Gardner, Judy, Mattinson and Seeley, Kansas City, Mo. Asptl 39-30.—Haloy Bros., Harris, Mo., and ethers, at Kansas City, Mo.

PUTTING OUT CALVES ON SHARES.

farmer of good reputation as many heifer calves as such a farmer could manage with care and comfort, and that all they would require of the farmer was at the figured in as demanding yearly increased supply when this view of the question is being considered. heifer calf furnished at commencement

wish now to know if you ever heard or read of such a party and proposition.

If so, can you furnish me with name and address of said parties? I did not think much about the proposition at the time, hence lost the paper and all trace of the matter. Since then I have mentioned the matter to several farmers, and find many want to get the address.

It appears to be a fair proposition for stimulating the stock cattle trade over the both parties to the contract, and would be a great benefit to many communities throughout the adjacent territory.

CLOVER BLOAT IN CATTLE.

Editor RURAL WORLD: The recent death of three or four cattle from eating a gorge of clover reminds me that it is well to advise as to methods of prevention and care of bloat. If cattle are fed a bunch of dry straw or fodder well sprinkled with salt water in the morning

ach with a long-bladed knife or trocar made for the purpose. This is attended the purpose. This is attended the purpose. This is attended the purpose. The influence that the Nebraska with little pain or danger. If a knife is TION.—The influence that the Nebraska stock Growers' Association is exerting wide and five inches long, and should be Stock Growers' Association is exerting over the state in the general disposition to pretty stiff. I have one that I made myself from a bit of a cross cut saw, ground down to a double edged knife, with a very sharp point. The place to make the incision is on the left side of the body, at a point equally distant from the backbone or vertebral column. The cut should be a bold one, and by a single thrust of the knife. backbone or vertebus and by a single thrust of the knife. As the knife is withdrawn a tube slightly smaller than the knife blade and 10 inches long may be in-

treatment, as some animals are more sub-ject to it than others and need careful

It is often said that a bull seldom bloats,

GALLOWAY BREEDERS TAKE NOTICE.

Editor RURAL WORLD: Volume XI. bers free by sending 25 cents to cover cost

The Executive Committee would like to have an expression of opinion as to the advisability of holding a combination sale October, 1861. If this sale is a sale is the bed distinctly understood that only the very best of the breed will be accepted for the sale, and any animal that does not to the standard will not be allowed to have quarters in the sale barn, or be led in the ring and offered. We want to know also who have animals that they ld like to put in the sale. Kindly answer these two questions at once. Are you in favor of the sale? If so, how many and what sexes will you enter for

Who has any steers, either a carload or a few, that can and will be fitted for the show this fall? We want to have a ord-breaking show of steers, and hope that everyone who has a good steer will fit for the show. Kindly let me hear

Make
Hood Farm Breeding
Powder does it. Write
for circulars telling how
and why. Best remedy are to clean, irregularity in coming in season. THE RANGE CATTLE INDUSTRY.

Editor RURAL WORLD: The range attle industry is still enjoying a bright rospect for future prosperity, notwith-tanding the prediction made three years ago by would-be wise observers. They de clared the cattle business was on a fictitious basis and the existing high prices would within a few years react to the ruin of the investors, owing to an overproduction of cattle, which would soon take place. The evidences of an over-production are nowhere present at this time, five years after the beginning of the article published in a St. Louis or Kansas City daily, but have forgotten what paper, stating that some Chicago moneyed man or men were making a proposition to the farmers of Kansas and Nebraska to the effect that they would have for a state of the farmers of the state of the state of the state of the farmers of the state of the duction of cattle by establishing new ranches and improved blood. The in-creased export demand for our beef, the increased home demand and ever-increas ing population of our country must be

THE WESTERN RANGE COUNTRY. where it was expected the greatest in-rease would be manifest, is each year complaining of a still great shortage of marketable cattle. All over the western and southern ranges there has been an advance in prices of the stock offered for sale. In addition to this there has been created a demand west of the Rocky Mountains for large numbers of these cattle, and this has had its influence in

be a great benefit to many communities by enabling farmers without means but reliable, to get a start.

Morgan Co., Mo. JNO. W. MARTIN.

We do not know of anyone offering to to make such arrangements with farmers, but should any of our readers know of such, they will confer a favor by reporting the information.—Editor.

The Wisconsin Agricultural Experiment Station has lately issued a bulletin No. 34, on bovine tuberculosis, of which the following is the summary:

1. The disease of bovine tuberculosis and dealer, bought in the Chicago market shipped to his Nebraska and Montana ranches. This, in the face of the good prices that a good grade of stockers and ady.

bunch of dry straw or fodder well valled throughout the large district of the sprinkled with salt water in the morning range country during the months of sprinkled with salt water in the morning range country during the months of the strain of the surround-ing states that have been engaged in digring for similar periods of time. The they will seldom if ever have bloat.

Another good plan is not to turn in until The open winter encouraged ranchmen to about 9 o'clock, but this fails on cold, let the herds stay on the range without hay longer than was safe for the strength with the wind that the breading cows and yearlings. This loss is more than regained, however, by mornings.

oint or more of powdered charcoal in a control of Western Nebraska, where the live education. The rank and file of dairy-stock business is being carried on under men are not yet awake to the importance of this question, more especially as to the I know an old German who said that he never lost a case if he used the following: A rope of hay or straw about two fing: A rope of hay or straw about two fines in diameter was made and coated with tar for six or eight inches in the middle and the tarred part fastened in herd famous throughout the cattle world with the naturally mouth, tying the ends has a withing the wart famous throughout the cattle world within the wart famous throughout the cattle world within the wart famous th middle and the tarred part fastened in the animal's mouth, tying the ends back within the next five years. The addition of the horns. Driving the animal about briskly until the bowels move freely is an old and sometimes successful method.

The last resort is puncture of the stomstart in the least resort is puncture of the stomstart in the least resort is puncture of the stomstart in the least resort is puncture of the stomstart in the least resort is puncture of the stomstart in the least resort is puncture of the stomstart in the least resort is puncture of the stomstart in the least five years. one of the first steps taken that indicates rapid progress in improvement.

THE STOCK GROWERS' ASSOCIA-

which this organization controls in the serted in the cut; this allows the gas to escape faster. This tube may be made of tin, or even of a bit of elder or other pithy wood, and can be removed as soon as the bloat subsides.

It is best to keep an animal which has bloated in the stable for a day or so after treatment.

(Concluded from last week.)

of width in the forehead. dency with many is to value the pedigree the character involved is very often unthose who reared the animals or has been handed down to others by tradition. The records of the show ring speak of it and to some extent it may be gleared some.

The state should be rendered safe by the application of heat.

The state should be rendered safe by the application of heat. to some extent it may be gleaned some-times from the agricultural papers on file, but, generally, sufficient can be gleaned in reference to the pedigree of performance from the breeder of the animal to satisfy the purchaser. It should not be forgotten that excellence of performance is of most importance in the near ancestry and that it becomes relatively less imfrom those interested at once, as we want this information immediately.

Entries and transfers are now being repossession of excellence in the animal this information immediately.

Entries and transfers are now being received for Vol. XII. Those to be recorded purchased to be told that the ancestry of should be sent in promptly. Send in your entries and transfers promptly. FRANK B. HEARNE, Independence Me. Searchers, but it is a matter of great practical significance to know that animals in the ancestry of three or four of the most re-cent generations were capable of winning

> The process of selection should be continuous. It is always operative. The time will never come when it will not be required, for the time will never come when all the animals brought into existence will be the equal of their parents.
>
> G. D. BUCKHART, Huntsville, Mo.,
>
> Some will be better, but some will not be purchased four females safe in calf and a



INTERNATIONAL STOCK FOOD FACTORY

tory, shown above, occupies 15 floors, size office work alone, including 25 typewriters. 100 by 222 feet each, and also six floors, size 25 by 60 feet each.

The treducts a people to attend to their office work alone, including 25 typewriters. In all departments of their business they employ over 200 people.

retained, and everything below the standard be sent to the shambles in early life.

Kansas City. These will be the foundation of a good Angus herd, for excellent ani-No feverish anxiety to increase herds or flocks quickly should be allowed to hinder this process, for just as surely as it does, some one will have to pay a heavy penalty for the neglect.

W. J. KENNEDY.

BOVINE TUBERCULOSIS.

The Wisconsin Agricultural Experiment

ranches. This, in the face of the good cause of the insidious nature of the malprices that a good grade of stockers and feeders have been bringing in the Chicago market means a still further evidence that cattle are scarce in the West and that high prices are not at an end.

THE USUALLY BAD WEATHER—snow, storm and cold rains—which prevailed throughout the large district of the materially different from other surround-line states that have been engaged in

meat is of necessity dangerous for use Still, inasmuch as they react to the test they show the presence of the disease germ in their systems, and as there is no simple way in which it is possible to detect just when the product may become dangerous, it is wise, of course, to re-gard the milk of all reacting animals as insuitable for use until it is first treated in a way so as to render it safe, which can be done by pasteurizing it in closed

7. The calves from reacting mothers (Concluded from last week.)

It is often said that a bull seldom bloats, and that a helfer in calf is more subject to it than animals in other condition. Be this as it may, I know of the death of from 10 to 20 animals every year, and everyone could have been saved by prompt internal treatment, or failing in prompt internal treatment, or failing in this by the knife.

C. D. LYON.

Brown Co., O.

(Concluded from last week.)

But the form of an animal is not all that he should consider, although it is greatly important. This may be told with considerable certainty by the told with considerable certainty by the prompt internal treatment, or failing in practiced eye without asking a single question. The small restless eye and the small erect ear, too active in their mover-nearting animals. It has been fully demonstrated that healthy herds can thus be small erect ear, too active in their mover-nearting animals. This often furnishes the least exments, indicate with an almost unfailing mals. This often furnishes the least excertainty a disposition that is restless and pensive way of controlling the disease, ill at ease. Where these indications are prominent there is also generally a lack sist that immediate slaughter is unneces-

by its length, which in reality is not the framed and passed before the nature of most important element. Excellence of bovine tuberculosis was understood, hence pedigree is of far more consequence than its provisions do not meet the conditions be easily ascertained. It involves to some slaughtered forthwith. This provision extent a study of the history of the ancestors, and the sources of information may not be easily accessible. History of the option of retaining valuable animals under quarantine in order to permit him written history. It lives in the memory of to raise from these affected animals those who reared the animals or has been handed down to others by tradition. The acting animals should be rendered safe

The state should give a partial compen sation for the destruction of affected animals as is done at present, but only where the infected quarters have been thoroughly and efficiently disinfected to kill disease organism present in the barn Furthermore, the state should require that all cattle imported for breeding or mediate slaughter exempted) should be subjected to the tuberculin test before shipment or as soon as they are brought into the state.

F. L. HACKLER, Lee's Summit, Mo has a small but good herd of Shorthorns that we will have something to say about later.

STEWARD & HUTCHEON'S Herefor at Greenwood, Mo., are doing nicely. March On 5 96536, their herd bull, is developing into a wonderful bull. Keep your eye him; he will make a mark.

G. D. Buckhart
C. H. Whitton, Jamesport, Mo.
Watson Bros.
G. D. Buckhart
J. B. Withers, Missouri City, Mo.
W. B. Sutton, Russell, Kan.
Watson Bros.
Jos. Miles, Fall City, Neb.
Watson Bros.
J. M. Duff
O. Harris, Harris, Mo.
A. P. Grout, Winchester, Ill.
J. J. Lamb, Bedaila, Mo.
W. B. Marvell, Carthage, Ill.
Col. O. A. Bridgeford, Joy, Ill.
J. Forsythe, Carbondale, Kan.
Col. O. A. Bridgeford, Joy, Ill.
J. Forsythe, Carbondale, Kan.
Col. O. A. Bridgeford
I. A. Glimore, Highland, Kan.
P. D. Andrews, Grant City, Mo.
J. O. Vanasdol
Chas. Escher, Sr., Botna, Iowa.
P. D. Andrews
Joe Miles, Fall City, Neb.
G. C. Schackleford, Glasgow, Mo.
A. W. McDonnel, Centerville, Ia.
J. E. Blackwell, Fayette, Mo.
J. C. Vanasdol
J. C. Vanasdol
M. A. Meyora, Fairview, Kan.
J. R. Hughes & Son, Payette, Mo.
G. A. Meyora, Estphenson, Watterville,
Kan.
Geo. Stephenson, Watterville,
Geo. Stephenson, Watterville,
Geo. Stephenson, Watterville The International Stock Company's fac- | It requires & people to attend to their The best should, of course, be bull at the recent Aberdeen-Angus sale at

Kan.

uckhart vthe, Carbondale, Kan

3. Sutton
Griffith
M. Saylor
J. Green, Rayburn, Mo.
Griffith
Detrick, Carbondale, Kan.
Bridgeford, Joy, Ill.
H. England, Callio, Mo.
Hughes & Son.
Whitton

J. R. Hughes & Son.... C. H. Whitton J. R. Hughes & Son... M. T. Williams P. D. Andrews T. J. Herbert, Galt, Mo.

119. Silas Igo, Palmyra, Iowa 16 120. T. J. Herbert 17 121. I. D. Webster 25 124. W. C. White, Carrollton, Mo. 30 125. Jas. Drummond 30 126. Jas. Drummond 40 127. Sp. 128. Drummond 40 128. Sp. 128. Drummond 40 129. Sp. 128. Drumm

ST. LOUIS NATIONAL STOCK YARDS

MarketReport Furnished by Evens-Suide Buel Company.

Receipts for week ending May 4 were

11,592 cattle, 39,357 hogs and 6,113 sheep, against 10,967 cattle, 33,580 hogs and 19,732 sheep the previous week. As compared

with corresponding week year ago, cattle increased 4,300, hogs 4,600, sheep decreased 3,600. Receipts at the four principal markets for the week were 114,800 cattle, 335,500

hogs and 115,600 sheep, against 108,200 cat tle, 311,800 hogs and 141,900 sheep the pre-vious week, and 101,400 cattle, 294,700 hogs and 108,800 sheep the corresponding week

Receipts in the native division wer

Best sold at \$5.70 and averaged 1,250 lb

Bulk of the 1,200 to 1,450 lbs. cattle sole

\$5.00 to \$5.50. Beef steers closed 10 to 15

lower than on last week, while best butch er helfers and all classes of cows figur

about the same decline from the high pe

riod of two weeks ago. The fair and pla

heifers are 25 to 40c lower. The strictly desirable stock heifers and feeders were a

shade lower, but in good demand, whil

medium ones suffered a decline of 10 to 15

and were very slow sale at the decline Veal calves tophped the market at \$6.0

Fat bulls were steady to strong, but this

stock bulls declined 10 to 20c. Milk cow

were in active demand at strong prices Quotations based on the present condition

of the market are as follows: Best na

tive beef steers, strictly fancy cattle 1,300 to 1,600 pounds average, \$5.70 to \$5.85 choice export steers, 1,300 to 1,600 pounds

average, \$5.50 to \$5.65; good shipping and

export steers, 1,300 to 1,600 pounds, \$5.20 to

\$5.45; fair to medium shipping steers, 1.80

to \$5.30; steers, 1,000 to 1,190 pounds average, full range, \$4.20 to \$5.20, bulk of sales at \$4.65 to \$5.00; steers weighing less than

1,000 pounds full range \$3.75 to \$5.00, bulk

sold at \$4.35 to \$4.70. Feeding steers, fair to choice, 800 pounds and upwards, \$3.50 to \$4.85, the bulk at \$4.25 to \$4.70, and they

were good quality; common to choice stockers, \$3.00 to \$4.75, bulk at \$3.75 to \$4.30,

and the quality was plain to medium; stock heifers full range \$2.50 to \$4.00 and the bulk at \$3.00 to \$3.00. Fancy native

heifers sell at \$4.75 to \$5.00, and there wer

range, \$3.50 to \$6.00 per 100 pounds, bulk at \$5.00 to \$6.00 per 100 pounds. Heretics and

yearlings sold at \$2.75 to \$4.00 per 100

\$2,70 to \$4.00, the bulk at \$2.85 to \$3.50. Dur

this week was the heaviest since the earl

Receipts in the Southern

uality, at \$5.15 to \$5.45 and the to

year ago.

BIG LAND AND CATTLE DEAL .-Vinita, I. T., May 1.—J. V. Farwell, of Chicago, closed a \$500,000 deal to-day with E. L. Halsell, of Vinita, for grazing land and eattle in Western Texas. The sale in cludes 150,000 acres of land in Oldham and A POINTER.—As an illustration of the prosperous condition of the cattle owners, 54, on bovine tuberculosis, of which it was noted last week that C. J. Hysham, following is the summary:

a widely known ranchman, cattle raises

1. The disease of bound to the cattle owners, 54, on both the summary:

1. The disease of bound to the cattle owners, 56, on both the summary:

1. The disease of bound to the cattle owners, 56, on both the summary:

1. The disease of bound to the cattle owners of bound to the cattle owners, 56, on both the summary:

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1. The disease of both the cattle owners, 56, on both th

mals were selected.

TO ENFORCE QUARANTINE .- The Missouri State Board of Agriculture announces that the quarantine laws against Texas fever will be more strictly enforced All Southern cattle must come in special cars when brought to Missouri, and must be immediately slaughtered, unless their owners are granted permission to fatten them in pastures which excludes all other

SHORTHORN CATTLE SALE .- Spring field, Ill., May 2.—The sale of Shorthorn cattle, held here by N. E. Jones & Co., of Williamsville, and S. E. Brother & Son, of Springfield, yesterday and to-day, closed one of the most successful sales ever given by the Shorthorn Breeders' Association. J. W. Brown and Randolph Brothers of Indianola, Ia., gave \$2,065 for A drench of a teacupful of baking soda, or what is better, two ounces of sodium hyposulphite, in a pint of warm water, often cures within a few minutes, and a pint or more of powdered charcoal in a quart of water sometimes has the same offer. for \$1,315; Foxglove, fourth (cow), sold to Mrs. Jerome Leland of this city for \$1,025. Shortly after the close of the sale a tele-

> ence or absence of the disease.
>
> 5. When dairymen in general have determined whether their herds have the disease or not, they can easily prevent its further spread. In case of herds now free from the disease future safety is insured by Barbard Master of the Rolls 99463, dam Galanti Lorels and Gal by Barbarossa 68197, tracing to imp. Gladiolus, by Pride of the Isles 45274. Dam of Gay Laddle is Lee Side Nell 6th, by Dick Taylor of Grenwood 50787, tracing to imp. Lady Elizabeth, by Emperor (1974). This is a bull of rare merit, of great size, quality and finish, and he is a splendid sire. Bred to the Rose of Sharon, Craig and London Duchess females of this herd, he estionably make his mark as a will una There are four young bulls in this herd that are for sale. They have just turned one year and can be bought with the money. Look up the Powell Bros.' ad-vertisement and write to them.

EDWARD BIGGS, one of the leading and most popular cattlemen and live stock auctioneers in his section of the country, and clerk of the county court at Bowling Green, Pike County, Mo., where so many eminent men in all walks of life have been born and raised, was at the National Stock Yards recently, says the "Live Stock Yards recently, says the Stock Reporter," with an elegant consignment of stock which had been fed under this personal supervision, including two his personal supervision their respective branches. They were 1,365-pound threeyear-old Shorthorn steers sold at \$5.50, and 878-pound yearling heifers of the same breed at 5 cents a pound, the St. Louis Dressed Beef Co. being the purchaser. Mr. Biggs raised the helfers, and the steers from the same crop he sold last week to Harry Shirding of Petersburg, Ill., who took the blue ribbon last year at the Chiere these indications are and meets the objection of those who in-is also generally a lack sist that immediate slaughter is unneces-forehead.

Sary. Only such infected animals should is all-important when be saved, for the time being, as show no Editor RURAL WORLD: Volume. At of width in the forehead.

The pedigree is all-important when livery about May 15. The price of the book will be \$1\$ to non-members, and \$25\$ who are capable of reading aright the cents for postage and wrapping; to members to be a wayling \$25\$ can be to cover cost.

Editor RURAL WORLD: Volume At of width in the forehead.

The pedigree is all-important when rightly understood. But it is only the few who are capable of reading aright the cents for postage and wrapping; to members, and \$25\$ who are capable of reading aright the disease.

See Revision of our veterinary laws. The tensor of Wisconsin was the contains. The tensor of the contains are contained and provided an imals should for the ensuing year's exhibit. Mr. Biggs saved, for the time being, as show no infected animals should for the ensuing year's exhibit. Mr. Biggs was provided and provided animals should be as a provided animals should for the ensuing year's exhibit. Mr. Biggs of the time being, as show no infected animals should for the ensuing year's exhibit. Mr. Biggs of the disease. 8. Revision of our veterinary laws. The present veterinary law of Wisconsin was framed and passed before the nature of bovine tuberculosis was understood, hence its provisions do not meet the conditions that surround this disease. As it has that surround this disease. As it has the state of Oregon. The dium cows at \$3.10 to \$3.60; inferior, light and old cows \$1.50 to \$2.50; the bulk of the Southwest cows sold at \$2.50 to \$3.40, and the bulk of all the cows sold at \$2.70 to \$2.50. Canning cows sell at \$1.25 to \$2.55. Veal calves, full the state of Oregon. The dium cows at \$3.10 to \$3.60; inferior, light and old cows \$1.50 to \$2.50 the bulk of the Southwest cows sold at \$2.50 to \$3.40, and the bulk of all the cows sold at \$2.70 to \$2.50. Canning cows sell at \$1.25 to \$2.55. Veal calves, full the surround this disease. have an expression of opinion as to the addinge is of far more consequence than late provisions do not meet the conditions and pedigree is of far more consequence than late provisions do not meet the conditions of the provision of the conditions and the conditions of the provisions do not meet the conditions of the provision of the provisions do not meet the conditions of the pr ave never known horses to be as scarce in the country as at present, there is hardly enough common ones to work the hardly enough common ones to work the crops, and fine animals are seldom seen. crops, and fine animals are seldom seen. Wheat has never experienced better early

THE ABERDEEN-ANGUS combination sale held at Kansas City April 29-20 was fairly well attended. The offering was the best ever seen of the breed in Kansas City and was a credit to the breeder that made the sale. Taking it all in all the sale was a success. Following is list of buyers and prices when \$100 or more:

	Trucson Dios e
3	5. J. M. Duff, Chestnut, Ill
	0. Watson Bros
	7. Watson Bros
	8. J. M. Duff
П	9. J. M. Duff
	10. Watson Bros.
П	12. I. D. Webster, Pleasant Hill Til
,	14. T. D. Anderson, Grant City, Mo.
	15. G. D. Buckhart, Huntsville, Mo
1	17. J. O. Vanasdol, Putnam, Mo
	19. I. D. Webster
1	21. J. O. Vanasdol
1	22. M. P. Williams, Caldwell, Kan
1	23. Watson Bros
H	25. Watson Bros
۹	27. G. D. Buckhart
8	29. Watson Bros
я	30. P. D. Anderson, Grant City, Mo.
Н	81. J. M. Duff
3	32. J. O. Vanasdol
U	83. Watson Bros
	94 T M Tour
	34. J. M. Duff

Gentry Bros., Sedalia, Mo. CEDAR VALE STOCK FARM



Grand Duke of Hazelhurst 19840 cash bolas or matchinist meas, assisted by Waterloo Duke of Cedar Vale 18065, heads our herd of pure Bates and Bates topped, pure Scotch and Scotch topped cows of the most fashionable families.

Stock for sale at all times at reasonable prices. Parties met at train. Farm

TELEPHONE NO. 90.

SHORTHORN BULLS FOR SALE! tais 185,000; Dark Ecan of April 25, 1896 at \$500, or will trade him for heifers. Also 6-year or Thorndais and out of dams of Easterday and Secret, these strains have been in the heart are great milkers. Call on or address

SHORTHORNS, BERKSHIRES and JACKS Short-horns Scotch or Scotch Top and Baies mostly. Berkshires best blood in America and England Stock of all ages and both sex for sale. Call on or address, N. H. GERTEN, SEDALIA, Mo.

ST. LOUIS NATIONAL STOCK YARDS, THE LIVE STOCK MARKET OF ST. LOUIS. coated at East St. Louis, directly opposite the city of St. Louis

Shippers should see that their stock is billed directly to the National Stock Yards.

SCOTT & MARCH, Breeders of Registered Herefords.

"Pasteur Vaccine"

SAVES CATTLE FROM BLACK LEG

Nearly 2,000,000 successfully treated in U. S. and Canada during the last 5 year Cheap, safe and easy to use. Pamphlet with full particulars, official endorsemen and testimonials sent FREE on application.

Pasteur Vaccine Co., Chicago.
Branch Office, 621 Whitney Building, Kansas City. Mo.

HEREFORDS GUDGELL & SIMPSON, 600 HEAD IN HERD. Independence, Mo.

Shorthorn Cattle Scotch, Scotch Topped, Bates and Bates Topped. As good blood as the breed contains. Imp. Nonparell Victor 182973, Imp. Blackwatch 18834, Grand Victor 18752 and Windsome Duke 11th, 121622 in service. Young stock for sale. Come and see or address GEO, BOTHWELL, Nottleton, Mo.

CRYSTAL SPRINGS SHORTHORNS

BLACKWATER SHORTHORNS! F. M. MARSHAL, Prop. BLACK WATER COOPER COUNTY, Mo. Herd headed by the Cruickshank Bull, Orange Hero 152,685 by Goddy. Females are of pure Bootel and pure Bates, with individual merit the stendard. Young stock of both sex for sale.

HEREFORD CATTLE! N. E. MOSHER & SON, Salisbury, Mo.

100 Head Shorthorns n herd; young stock of both sexes for sale. The cruickshank bull Duke of Hardson 123967 a lead of herd. W. H. H. Stephens, Bunceton, Mc

Ed. C. Weeks, Eldon, Mo.

AUCTIONEERS.

to 1,450 pounds, \$4.85 to \$5.15; the bulk of the native beef steers averaging 1,300 JAS. W. *PARKS, Marshail Mo. Am ling for the best breeders everywhere, Poste pedigree and individual merit. Terms fow pounds and upwards, medium to good to 1,290 pounds average, full range, rough to best, \$4.65 to \$5.70, bulk of sales at \$4.85

J. WEST JONES, LENOX. IOWA, and CAREY M. JONES, DAVENFORT, 1A IOWA'S LIVE STOCK AUCTIONEES. Write before claiming dates.

R. W. MITCHELL,
LIVE STOCK AUCTIONEER.
GENTRYVILLE. MO.
25" breed pure bred cattle and hogs, my host
of patrons say I knew how to sell them, Write
for terms and dates.

R. L. HARRIMAN, Live Stock Auetlo, Mo. Up-to-date in every particular. Am selling for the best breeders in the country. Terms low.

HARRY GRAHAM, CHILLICOTHE, LIVE ST AUCTIONEER.



Shorthorn Cattle,

rkahire Hogs, Cotawold and Shropahire Sheep ills ready for service. Some choice boars land sucks for sale at reasonable prices. The pure tich bulls Violets Frince 145647 and Golden Symathy 151666 in service.

JOHN MORRIS, Chillicathe, Mo.

A DEHORNER The proper dehorner is a Polled Durham Bul Vrite or call in reference to same, G. W. JOHNSON, Lexington, Mo.

Aberdeen-Angus Cattle.

H. A. BARBER.

WINDSOR, MO. Shorthorn Bulls For Sale! te intending purchasers and those in-od cattle to call at our farm, four Windsor. The best located herd in orn purchasers. All stock put on carsin good

RAVENSWOOD HERD

SHORTHORNS

25 head in herd. 30 bulls for sale from 6 to 16 mo id. Scotch and Scotch toped. Herd headed by Lavender Viscount, 124755), the champion Shori orn bull of the Kansas City Show, 1900. orn bull of the Kansas City Show, 1965.

C. E. LEONARD, Bell Air, Mc.

ED. PATTERSON, Manager.

B. B. and telephone station, Bunceton, Mo

ENGLISHED POLLED CATTLE I. K. HASELTINE, Dorchester



Call on or address
J. LITTRELL, Sturgeon, Mo. ATALOGUES for Shorthorn sajes compiled or furnished complete at attractive prices. ddress THOS. P. HALL, Breckenridge, Mo.

From the best imported and native strains. Far situated 2 miles from station: telephone at far Viatiors mei at depot if desired. Corresponden solicited. Young stock for sale at all time W. G. SWINNEY. Bols D'Are, Mo., Greet Co., on Mouphis R. R.

SHORTHORN CATTLE was tops sell

Shorthorn Bulls. A choice lot for sale. Good colors, good indiduals and good pedigrees. Write for prices.

W. H. FULKERSON & SONS,

Jerseyville. Illinoi

AVONDALE GALLOWAYS. A few bulls of serviceable age now for sale. Can spare a few females, 100 in herd. Otto H. Swigart S. end State St., Champaign, Ill.

H. W. KERR,
BREEDER OF LED FOLLED CATTLE.
Good young bulls for sale.
Carlinville, Ill.

Camp Creek Herefords. Young stock for sale. Come and see me. LOUIS WEHRMAN, Truxton, Lincoln Co., Mo.

ZENOLEUM Kills Lice, Ticks, Mites, Fless, Etc., on all kinds of animals and positry. Given the statement of the control of the

Horseman.



The State Board of Agriculture of Indithe use of the speed department of the State Fair this year. Of this amount \$7,-000 will be for the stake races and the remainder for purse races.

Chilean cavalry horses have been put through a remarkable test of endurance. Twenty-one officers mounted on their or-dinary chargers rode 250 miles in three days, covering 81 miles the first day, 81 the second, and 88 the third. The route ver rough mountain roads, in some places 3,000 feet above the sea level. All the horses were bred in Chile.

Mr. McCully announced yesterday, says "Herald" of April 24, that the New York Trotting Association would offer a purse of \$3,000 for a big pacing race among the cracks of the free-for-all class. This ociation would offer a race is expected to bring together such horses as Joe Patchen, 2:0114; Prince Alert, 2:02; Anaconda, 2:0214; Coney, 2:0214; Connor, 2:0314; Bearchlight, 2:0314; Frank Bondon, 2:0314; Searchlight, 2:0314; Frank Bondon, 2:0314; Frank Bondon, 2:0314; Frank Bondon gash, 2:03%; Hal B., 2:04%; Indiana, 2:04%; Giles Noyes, 2:05%, and Johnny Agan, 2:05%. The owners of several of these horses have already agreed to enter them.

these horses are put admit a wide range in height and weight. Horses may vary in height from 15 hands to 16 hands 2 inches, and in weight from 1,000 to 1,200 pounds, and still rank in this class. First-class animals of this class sell at from \$150 to \$300 and upwards, fine specimens selling readily at \$400 or \$500.

C. G. Comstock, of Albany, Mo., who is quite ar. extensive breeder of Hereford cattle, is also branching out in the breeding of light harness horses at his well appointed farm, located near Denver, Mo. R. P. Eslinger is in charge of the breeding and training department. The premier stallion is Abihu, a handsome 1,200-pound son of Pretender 1463, dam by Onward, 2:25%. About a dozen well-selected stand-ard mares are now at the place, six of them by Herschel 3524, the noted Missouri this. sire, and son of Belmont. A number of promising young things are being trained.

Speaking of the growing scarcity and increased value of high-class carriage horses, a well-known New York dealer recently said: "We were lucky in getting together nearly 200 coach horses before the busy season opened. Without a big stock to draw on we could never the demand this spring for it is simply impossible to buy horses of this Mambrino, dam Jessie, by Edwin Forrest type as fast as we are selling them. We 49. Ed Crabb had a premium saddle mare restill buying, but horses of the right that he bred to him and got the dam of sort are now very scarce; and we have to pay like sixty for them. I estimate that we sayed fully \$15.000 by supervising head. we saved fully \$15,000 by purchasing heavily last fall.'

A wonderful ride was accomplished by Mr. Cowper Thornhill of the Bell Inn, at Stilton, England, on April 29, 1745. An inscription on a print of the time tells us that he started from Stilton at 4 in the morning, rode to London, 71 miles; and reached the Queen's Arms, opposite Shoreditch Church, in 3 hours and 53 minutes returned to Stilton in 4 hours and 12 min-utes, and came back to London in 4 hours

have diagnosed as diphtheria is prevalent among the horses of farmers living in o others which belonged to Hanby died, John D. Demorest of Geneseo for the horse?

day. The fields were small, owing to the race. The following were the results:

Half mile-1:091/2, 1:111/4. Gentleman's road race, to wagon:

Electeer, b. c. (Colman Stock Farm)... 2 lunacy and sent to some secluded asylum flora Cicerone, blk. m. (Bonner Mil-to study the defect of his memory or con-...... 3 formation innerited as shown by Grattan

Time-1:241/2, 1:24. With Europe as a market for our fast trotters, it now remains for some enter-prising horseman to work up a foreign market for pacers, and it is said that

this would not be difficult to do in the Argentine Republic, says the "Horse Horse Owners! Use



the runner is the popular race horse ther although some attention has been paid to the harness racers. No difference is made between the trotters and pacers, and they start together in the same race. The preference, however, is said to be for the pacer, and recently a wealthy res-dent of that country placed an order in his country for two pacing stallions havng speed enough to pace at least in 3:25. To those who are breeding pacers, it would seem as though the Argentina narket for horses of that gait would be worth cultivating.

The attention of horsemen is called to the speed programs of the fairs adver-tised in this issue. Beginning at Quincy, ana has decided to appropriate \$15,000 for July 23, there is a continuous circuit of eight weeks racing, taking in from week to week such desirable towns as Colum-bia, Holden, Harrisonville, Rich Hill, Nevada, Higginsville and Sedalia, where the State Fair will be held, and then there is hope that towns will fall in line like Cen-tralia, Moberly, Huntsville and Chilli-cothe. If they will arrange to have their fairs as a continuation of the circuit it will be most desirable. These towns all hold successful fairs, and we think it would be better for them to join in the frcuit, than come in competition with the airs in the S. W. circuit. The stock of fast trotters and pacers is short, and if divided will make poor entry lists. All fairs needs large entry lists to hold successful meetings

L. E. CLEMENT'S HORSE GOSSIP.

Editor RURAL WORLD: One of the first events in the light harness world of Missouri will be a June meeting at Rich Hill. John D. Moore, the local and circuit The road, carriage and coach horses are the highest class of unregistered horses on the market. They are distinctly driving horses, though not racers, and are used for private work as distinct from public service. The varied uses to which these horses are used to state the straps, has never known that it is to be the straps, has never known these horses are used to enter them. and has already possibly been driven as fast a mile as has been covered by any harness horse in the country this season On the other hand, the horse is willful and does not know what it means to be forced into early and quick preparation. In all his races he has been driven by his present driver, has raced in more races than any three-year-old ever was, and tied in his record with Sidmont and Red Seal, all having three-year-old marks of 2:10½. He is to-day in better condition than ever before in his life. He wears no extra rigging and has not been driven up to his speed at all since his jogging began The Rich Hill Association has hung up \$500 to be competed for by the two horses, and the winner is to take the whole. No event in all the country will attract the same attention in Bates county that will

Mr. Cotton is an old citizen that has made a fortune there. While educating his daughter at Clinton he bought Red-mon C., the grandson of Blonda, and drove him at Carthage, Mo., in 2:30, the first Missouri colt to pace in that time Eighteen years ago the writer brought to Rich Hill with Milton Ervin, father of W. F. Ervin, who drives Riley B., the chestnut stallion Goodwood 2223, by Woodford Mambrino, dam Jessie, by Edwin Forres this is a Rich Hill matter, that all the Bates county people are interested and every one will be for or "forninst" the other side.

"Little Helen," says Observer in the "Trotter and Pacer," "is the biggest mare for her inches one could find. She is beautiful and fearless of all objects. She must be O. K., for T. W. Lawson entered her in the M. and M. expecting his agent to purchase her. Lon McDonald entered her in the Buffalo slow classes. Mr. Flantutes, and came back to London in 4 hours and 13 minutes. He thus won easily his bet that he would perform this feat in fifteen hours. The race excited great interest, and it is said that the road for miles was lined with people waiting to see Thornhill pass.

A disease which several veterinarians claim against Mr. M. H. Reardon for an amount equal to the ned C. Williams. amount equal to that paid C. W. Williams among the horses of farmers living in Genesco, N. Y., and vicinity. The disease is in a severe form, and none of the horses which have been attacked have recovered. The first horse attacked belonged to John Hanby, who lives near the shore of Conesus Lake. The horse and the horse and shore of Conesus Lake. The horse and shore of Conesus Lake. The horse and shore of Conesus Lake to Horse which helpored to Horse w son of Blue Bull, out of a mare by Enshas lost two horses, matched road animals, for which he had refused \$650. Eight other horses worth about \$1,600 belonging to various farmers, have also died. Remarks.—If anti-toxine is a remedy in the human being, why should it not be for the horse? ley's Blue Bull, another son of Blue Bull the best in the land, it is out of reason, and Mr. Flannagan should be enjoined The first matinee of the Gentlemen's from making such a spectacle as such an Driving Club of St. Louis was held Saturday with the spectacle as such an attempt would certainly bring about. Observer, of course, when he saw her trot, fact that few horses are in condition to thought she was by Don Felix, the highrace. The following were the results:

Redmont, b. g. (T. W. McManus)......1

Bonner Miller, b. c. (Bonner Miller)..3

Wilkes, the fashionable high-bred Electioneer cross, but not a little, useless hoppled, pacing-bred mare, from the in-Lady Helen, blk. m. (John'P. Martin).1 1 terior of Ingiana. Observer's opinion may Angle, ch. m. (James E. Kenney)......2 2 be good on ordinary questions, but if he The Biacksmith, b. g. (Thomas Carlin)3 dr still held to his opinion of this mare after Gold Coin, ch. g. (J. D. Strauss).....4 dr he knows she is by Apple Jack, the pacer, out of a mare by Kimo, dam by Jim Wil-

from his ancestors generations back.

Mr. N. Swope, who shipped Walnut B.,
2:12%, to the Blue Ribbon sale, sold
Windsor Boy to Mr. Hunt, who takes him
to Southern Wanner School of the State of the Sta to Southern Kansas, where he is likely to be heard from. Mr. Swope bought at the sale the trotting mare Try Me, 2:24¼, by Dan Mace, sor of Caledonia Chief 392, son of Royal George 38, by Royal George 38, son of Royal George 9, by Black Warrior, son of Tippoo. This is the horse about which there were so many fairy stories told. "That he swam in from mid-ocean, etc., etc." There seems now to be little oubt that he went from the states to Canada and had more or less of the blood of the Narragansett pacer. He has been called the 'Messenger of Canada.' The four generations of Royal Georges down to Caledonia Chief stred five trotters, and Caledonia Chief made his sire standard when he trytted in 2:29%. The dam of Try Me was Glee, by Oxford Boy 2885, sire

A Lame Horse is neither valuable for use or sale. It is better not to have a lame horse.

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Avoidall blisters; they offer only temporary relief if any

lam of Strathmore. The second dam of Caledonia Chief was an untraced pacer. This makes a strong pedigree from the minor families, and as Try Me will be bred to Walnut Boy, 2:1114, we can expect o see speed from her of a high order at one gait or the other. Mr. C. E. Mauker, who was the princi-

pal worker in the Blue Ribbon sale, must feel that "it never rains but it pours." Before the first day's sale was over it was nced that his mother-in-law Bidding dragged, and while good sales were made and the guideles wonder, Joe Beppo, made a great exhibi tion, the rain came down so hard that ev erything was declared off. Less than half the horses on the ground were offered. The management must of necessity be

Walnut B. will be prepared for the races at Karisas City, Kan., and should be a good one in his class. He is fat and strong and has been jogged all winter, and should get into shape very fast. Try Me, 2:24¼, and Walnut B., 2:12¼, will probably be raced by Tom Ervin after the Rich Hill Ju eting. They should be good in thei through the Misset a new mark for This will require him ter. The footen by Gyp Walnut

NAIL WOUNDS SES' FEET. Editor RURAL WORLD: We have just had a fine driving horse badly lamed by stepping on a nail and as our treatment cured him in a few days, will give it. . The lameness was attributed to a sprained pastern, and four days after we noticed it I was renewing the shoe and discovered the nail hole.

ing and a mare.

The hole was enlarged with the hoo knife and about a tablespoonful of matter ran out, we then syringed out the pus cavity with 10 per cent solution of carbolic acid, syringing this out in five minutes with a 5 per cent solution. Then we filled up the cavity as well as we could with finely powdered borax, this was left until the next morning, when it was washed out with syringe and 5 per cent

It was again packed with borax and left 24 hours, when the full treatment was repeated. I drove him four miles and back on the fourth day, and when we be-gan to treat him he could scarcely put his foot to the ground. Our reason for using the 10 per cent solution of carbolic acid at first was to slightly cauterize the sore and to thoroughly cleanse it of any foul matter.

If anyone has a better method I want to hear of it.

Southern Ohio.

HANDLING THE HORSE.

Dr. Currier believes in the kindergarter or young colts, and said that he liked to begin the education of the colt when not more than a day old, says the "Co. Gent." First catch the colt and hold him by putting one arm in front and one back of him. The pivotal point of action is the center of the body; fasten him in front and he tries to go backward. Fasten him at the rear and he tries to go forward. We should understand this law, which is a part of the nature of the colt, when we try to govern him. You can easily hold the colt if you place one arm under the neck and the other under the ham. Handle the colt first on one side, then on the other, then give him a lump of sugar. He may not eat it at first, but

on him and pull, he goes back. To counteract this, place a strap around his body just in front of his hind legs. Attach a

I take a pair of old carriage wheels on an axle. To these are clipped two wooden bars, 14 feet long, about two feet from the ends; the longest ends, extending in front, make the thills for the old horse. A cross-bar is placed just in front of the wheels, extending out far enough to hitch the colts on either side of the old horse. The colts are hitched to light bars placed in front of the horse, with ropes what to do, and they get used to hearing the wheels roll behind them, so that they

are not afraid when hitched to a wagon.
Stallions should not be tied by the head in narrow stalls, or even kept continually in box stalls or small yards, but should be worked or driven daily, to sustain the vigorous digestion that comes from mus-cular exercise, and get the fresh air and sunshine, all which are as necessary to the health of the horse as for the human family. All the usefulness of the horse consists in his action, movement and work; they are comparatively worthless when idle boarders on our hands-feed, care and muscular energy are thrown away. It would be far better if stallions were kept at work every day, out of sea-

The shoeing of the horse is at no time mere mechanical operation, but when the aid of the craft is employed for the rect purpose of developing speed, more than ordinary experience, judgment and scrubs, let the intelligent breeders of our country aspire to produce the best and country aspire to produce the best and thereby receive their just recompense for their labor. udgment, writes a practical shoer in the

'Horseshoers' Journal."
Speaking of using one's judgment re-calls to my mind an instance of a few months ago. A horse was brought to me lific instructions as to how he with specific instructions as to how a should be shod, with a view of increasing his speed. I followed the instructions to the letter, and was not at all surprised to have the man come back the following ay with the horse, complaining that the peed of the animal was very much les-ened. I showed him plainly that his directions had been complied with, then equested the privilege of shoeing the horse according to my own ideas. He assented, and after the first trial returned much elated to inform me that the horse weighed the old shoes, and made the new uliarly gaited horse for a trotter.

A great mistake is often made by horsesheers and trainers in instances of this kind, and one which is a serious handleap to the horsesheer is the command to shoe a horse exactly as before, the owner losment, etc., are such that the structure a horse exactly as before, the owner los-ing sight of the fact that the horse has shown his best speed when the shoes had been worn for some time, and are much lighter in weight than when new, consequently when replaced by new ones ac-cording to instructions, the additional weight lessens the speed, and the blame is then placed on the farrier. However, there are many times when an owner, who is thoroughly acquainted with the gait, etc., of his horse, can give valuable points to the horseshoer, and with the can be materially increased.

THE AMERICAN HORSE.

We read in Genesis 1, chap. 25-26, that God made the beast of the earth after his kind and cattle after their kinds, etc.' It is fair to presume that the horse was included in that category, says D. M. Sanford in "Spirit of the West." It is also recorded that man was a later creation, so we must assume that the horse was not only created as soon as the earth was formed, and in condition to sustain certain shapes in which to act. animal life, but that he was created for a History bears us out in asserting that

of life on the earth. Numerous authorities are on record showing that the horse has come down to our times through evolutions as great as it has been in man. The law of the "survival of the fittest" asserts itself so slowly yet so unremittingly that we must acknowledge its great truth, although the changes in one life time may be almost unnoticeable. The vicissitudes of time bring to us many acts worthy of note relative to the horse The laws of supply and demand have of-ten tipped the scale from one extreme to the other owing to panics or times of war in which great changes have been rought in values, the latter being now nanifest in high prices and a great scarcity of available mounts for war purpose abroad. In all these changes it appear that the American horse is very much in evidence, as he is being sought for in al most every foreign country we might name, either as a war adjunct or for the race track. Experience, it is said, teache a dear school, and yet how few breeder see the end from the beginning clearly and stick to the matter of breeding salable horses through a series of years of depression in prices. It is now self-evident that the present shortage and high prices were brought about by breeders abandoning well fixed principles only a few years ago, now only to find when prices of good horses have quadrupled they do not even possess a single brood mare, much less anything marketable. Turning now to the realms of pleasure, who is there who has loved and driven a

fine equine, that has not often enjoyed that indescribable something telegraphed sugar.

When you are able to handle the colt

Cy of joy beyond compare. To be trans-At such a time he who enjoys his lovely steed, revels in the labyrinths of the world's best pleasures such as the inventions of man in mechanical contrivance can never hope to equal. Show us the individual who loves and enjoys driving a spirited horse and we will show you a being who has noble impulses lurking somewhere in his makeup. As intimated in the outset the horse was given to man for his assistance in performing labor; also for his pleasure.

What the breeders and lovers of fine horses in this country need is to enter into the spirit of the business with renewed energies, backed up by careful and cor stant study, as to what types the markets of the world most demand. And when this is definitely ascertained, follow out the problem for a life time, raising just the types they are familiar with, and when prices wane for a time arrange to carry the surplus until the scale tips the other way, when large profits are sure to other way, when large profits are sure to be realized. To breed live stock upon any other plan is, to use an old saw, "to kill the goose that lays the golden egg." Farmers have long since learned to plan were kept at work every day, out of season. If owners of brood mares would insist on patronizing only the sires that are in the harness and kept at work daily, the result would be profit to the owners of stallions, and also to the patrons, as the offspring would be stronger, and there would be an improvement in the feet and legs of our horses; also in endurance and constitution. corn and sow small grains every year s tegs of our horses; also in endurance and pect a higher type of the horse to soon be evolved from the numerous breeds than the Osgood Scale Co., Binghamton, N. has yet been produced in the whole world.

THE HORSESHOER IN DEVELOPING can offer better inducements to breeders than the North American contin the sconer the people awaken to their un-usual opportunities for breeding the high-est types of horses to be produced, the better will they fare financially.

Now that the country is well rid of th

ESSENTIALS IN BREEDING,

In breeding the light-harness horse more especially the American trotter, few men aim at producing a pacer, the theory of breeding is followed closely, yet theory of breeding is followed closely, yet how rarely is practical horse sense brought into play, says the "Horseman." Most men think the pedigree is all that is necessary, and after collecting the choicest blood lines for the breeding stud, expect great results, unmindful of the fact that they have left out the horse. First the pedigree, then the horse, but he First the pedigree, then the horse, but be sure you have the horse. Practical horse blood where mere theorists have failed exceeded his former speed by two seconds.

On removing the old shoes I noticed that the outside of the front ones and the naide of the hind, were much worn. I excellence to begin on. Individuality set of the same heft, but placed additional weight in the part that were most worn gait are fully as essential as mere blood in the old ones. The front feet were levelled off, a little or no cutting being the lack of all these essential qualities in the lack of all necessary, and the same treatment was given the hind feet except leaving the trotters have come where these good qualities were pronounced than from pediculiarly gaited horse for a trotter. ree alone.

The trotting instinct is intensified

through long lines of trotting blood, yet stayer and will transmit this undesirable quality through many generations. Sub-stance is absolutely essential in a race horse or trotter. Yet there is a vast difference between substance and co The former quality, when applied to horses, signifies solidity, firmness, horses, strength, while coarseness is flashines latter's experience and skill the speed of Quality is just the opposite of coarsen and signifies finen gnifies fineness. Yet this is fre-confounded with lightness, alquently confounded with lightness, al-though quality and substance always go though quality and substance always go together in anything like perfection in horseflesh. The ideal horse that is in-tended for speed must have the strength to carry his speed, the substance to en able him to stay, and the quality able his functions to act properly. There are certain structural points that are very essential in the trotter as in the thorough

The heart and lungs to fully do their purpose, so laudable that his extinction will not come about while man continues great depth of girth, or, as it is called, to occupy the earth. Short backs are not as likely to be strain in all the archaeological discoveries yet made evidences are plenty to show that the horse has existed from the beginning concussion better than long ones. There opposed to each other any infringement of the one on the other brings disastrous results. In this respect breeders of the eavy draft horse have shown more judgment than trotting horse breeders, as the former have never selected for their se the type of the trotter, and breeders of trotters frequently use mares and stallions that more closely resemble draft horses than any other breed. To produce a type one must follow the type and not iclude every known species in one's ideas of conformation

Veterinary.

WORMS .- B. S., Avon, N. Y.: "(1) A mare has pin worms and will not shed her hair. The veterinarians have been treat-ing her and do not do any good. She has lost all spirits since she did not shed her hair last year. (2) Another mare has swellings on the hind leg at ankle and hock in cold weather. A blister made it well with the halter, give him some lessons in driving. Let the old horse teach the colts their first lesson, and to do this, I take a pair of old carriage wheels on panyle. To these are clipped two wooden or anyle. To these are clipped two wooden behind a spirited horse is to open them. ball. Follow up with one dram of dried sulphate of iron and two each of ground gentian and ginger roots and one of salt peter three times daily for ten days, then twice daily for another period of two weeks. If the worms are in the rectum it would be well to inject by means of hose and funnel a half pailful of soapy warm water in which has been mixed a half pint of tobacco tea made by steeping tobacco stems in boiling water. The case is a very suspicious one, as the symptoms point to either farcy or glandfeel warranted in prescribing.

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Henry Wilkes, aired by Ashland Wilkes, 2:17% (sire of John B. Gentry, 2:00% and others Henry Wilkes, in 2:30; ist dam Bonnie C.. by Joe Elmo; 2d dam Nettie by Blackwell's Hambletonian, Jr.; 3d dam Mollie by Bay Esgle, thoroughbred son of the grad Grey Esgle These Stallions are not only royally bred but bred right. MONGOLD stands 16 hands high, good flat bone, weighs 1200 lbs., and has shown his ability to trot in 2:15; has a record of 2:34%. Will be marked this year.

HENRY WILKES is a noted show animal, possesing more style and beauty than any-dy's horse. Awarded ist premium in Roadster and all purposes, wherever shown; two beliver medals Kansas City Inter State Fair. Will make the season at my place. For extended pedigrees and terms, address

ROLLA C. BROWNLEE, Holden, Mo.

PRAIRIE VIEW STOCK FARM.

WALNUT BOY 2:111, Brother of {Bellie Andrews 2:08½ Victorine 2:20.

Sire of Gyp Walnut 2:08½; Walnut B. 2:12½; Robbie C. 2:14½; Dan T. 2:16½; Monnut 2:17½; Joseph R. 3 yr. 2:22½; Dr. Port 2:30.

ONWARD BOY, by Onward Fewel, record 2:11½; 1st dam by Walnigh and one of the best gaited trotters in Missouri.

ALLISON BOY, by Walnut Boy 2:11½; 1st dam by Andrew Allison an inbred Clay mare. I consider Allison Boy, one of the best, if not the best son of Walnut Boy 2:11½.

SUNSET SENIOR, Standard and registered, saddler, goes the gates and cannot be beaten for style. All of these horses are standard bred. I also have six Jacks, all black, from 15 to 16 hands high. Stock for sale. For full particulars and pedigree, apply to J. G. CALLISON & SONG. Windsor or Lecton, Mo. of the standard bred. gree, apply to

MISSOURI STATE FAIR,

At Sedalia Sept. 9 to 14

Stake No. 1-2:45 Class	Trot \$ 500	Stake No. 6-2:35 Cla	as Pace	\$ 500
Stake No. 2-2:80 Class	Trot 1000	Stake No. 7-2:25 Clas	s Pace	500
Stake No. 3-2:27 Class	Trot 500	Stake No. 8-2:17 Cla	ss Pace	1000
Stake No. 4-2:23 Class	Trot 500	Stake No. 9-2:10 Cla	as Pace	589
Stake No. 5-2:18 Class	Trot 500	Stake No. 10-(3-yea	r-old or under)	300
	Enteles Class	Irona Imala II	100	

Entries Close June 15th, 1901

The State Fair falls in line with and forms one of the links of the Short Shipm Mo. American Trotting Association rules to govern. Entrance fee, five per cent. Short Shipm Mo. American Trotting Association rules to govern. Entrance fee, five per cent. addit winnings. State of filling satisfactorily declared off and entries transferred unless objected, 80, 25, 15, 10. Right reserved to change order of pragramme, posses for reason. Short Shipm Month of the Shipm Mont

BALDWIN PARK RACES

Quincy, Illinois, July 23, 24, 25 and 26, 1901.

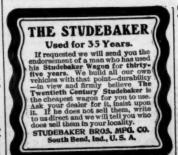
No. 1—2:40 Trot. Purse. \$300.00 No. 1—Admis Co. No. 10—2:17 Trot. No. 13—2:10 Pace. Solution Road No. 3—3:00 Trot or Pace (Quincy Road No. 3—3:00 Trot or Pace (Quincy Road No. 10—2:17 Trot. No. 11—Free-for-All Pace. No. 4—96-mile Dash. SECOND DAY. SECOND DAY. SOlution Road No. 13—2:30 Trot. No. 13—2:30 Trot. No. 13—2:30 Trot. run and made her much worse. The swelling sometimes runs to the hip." Reply.—
(i) Have the teeth put in good order. After feeding bran mashes alone for twenty-four hours have the veterinarian give a full dose of Barbadoes aloes in shape of ball. Follow up with one dram of dried bull. Follow up with one dram of dried supports of the property of the FOURTH DAY. N. E. WOODS, Professional Starting Judge.

Short Shipment Racing Circuit of S.-W. Mo.

Dates—Holden, Mo., August 6-9; Harrisonville, Mo., August 13-16; Rich Hill, Mo., August 20-23; Nevada, Mo., August 27-30; Higginsville, Mo., September 3-6. Stake Race Program 1901:



Stakes to close June 15, 1901. Write to John D. Moore, Circuit Secretary, Rich Hill, Missouri, for program giving conditions and rules governing entries.



SYNOVITIS IS VERY ANNOYING

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CURES All Strained Joints or Ligaments.

Allays all inflammation quickly. Pleasant to use. \$1.00 per bottle delivered. Address

W. F. YOUNG, P. D. F., SPRINGFIELD, .

Home Circle.

ONE DAY AT A TIME.

One day at a time! That's all it can be; No faster than that is the hardest fate; And days have their limits, however we Begin them too early and stretch them too late.

> One day at a time! It's a wholesome rhyme! A good one to live by, A day at a time.

One day at a time! Every heart that Knowing only too well how long they

But it's never to-day which the spirit It's the darkened future, without a

One day at a time! When joy is at height Such joy as the heart can never forget-And pulses are throbbing with wild de-

How hard to remember that suns mus

One day at a time! But a single day,

Whatever it's load; whatever it's length And there's a bit of precious Scripture to That, according to each, shall be

One day at a time! 'Tis the whole

strength.

orrow, all joy, are measured there-The bound of our purpose, our nobles

strife, The one only countersign sure to win!

One day at a time! It's a wholesome rhyme!
A good one to live by,
A day at a time. -Helen Hunt Jackson.

Written for the RURAL WORLD A RECIPE WITH VARIATIONS.

We are all familiar with the dear old melodies with brilliant variations, which not only delight the musician but even those who claim to have little knowledge of music; but it is the same old song Now, this is what a wise housekeeper will do with a few good recipes; she will master them, and then have variations of them. Too many housekeepers undertake to learn how to make too many kinds of cake and in consequence often feel that they do not make good cake. When vis-iting a friend, if the cake served is nice, the very next thing is to ask for the recipe for it, and thus an endless collection of recipes will be secured, and the one having them may not be regarded as even a fair cake baker. It would be far wiser for a housekeeper who has so many other duties to absorb her thoughts and energy than the single one of baking to secure two good cake recipes and learn to use these so failure is seldom known a cake; and three are all any general busekeeper should ever attempt. These should be a good solid care, a good layer cake, and a cheap plain cake, that may be eaten warm, when baked as a solid cake, or baked in layers when to be used fresh, and if there is no time to spend on the best cake. Farmers' wives know that there are times when a cake must be made "on a rush," and then the plainer the cake the more apt is success to re-Now, these suggestions do not mean that we should not study the cook

I have only two cake recipes, but I have many kinds of cake from them. I have learned just the proper amount of each ingredient to use according to the dimensions of my cups and spoons, and the tem-perature of the oven, and these are important factors in cake baking. I refrain from giving these least some other woman will not have the same sized cups wild chicory that are very nice. The an will not have the same sized cups and failure would result. The schools of domestic science advise the use of the this spring; ours grows semi-wild on a measuring cups and spoons. With them no mistake. When I mix a cake I expect it to be good.

Now for the variations. I carefully note all recipes for cake fillings. These really are what make variety in layer cake. I will venture my recipe for boiled which also has its variations. To one medium sized cup of sugar put four tablespoonfuls of cream or milk. Stir while boiling, and boil until the sugar commences to spin a thread, when lifted place to grow it, but those who can do from the pan. If cream is used, put in a so should never be without some along piece of butter about the size of a hickory nut and a little more if milk is used. Then add the flavoring. Let the sirup on the cake. If the cake is large and fine it will grow under even silght care. The wild lettuce Mrs. Cody the loing is used for filling, two cups of sugar and eight spoonfuls of cream will be required. If coconnut or grated chocolate is added to this icing for a filling wild and the sugar to see how large and fine it will grow under even will lettuce Mrs. Cody writes of could be easily grown by sow-ing the seeds in September in some sheltered spot with southern slope. and the top of a cake, it is fine. Then seeded raisins, citron and nuts may all be chopped fine and stirred in this icing or any one of them, and you have a different variety of cake. My best cake is a white one, and the chopped nuts, raising and citron make a cake fit to grace any table, even when the daughter is a bride When a white cake is baked there are

also variations planned for the yelks. By adding two teaspoonfuls of flour to two yelks, two teaspoonfuls of sugar, a half onful of ground mustard, cup and a half of water and large spoonful of but-ter, you will have a delicious lettuce dressing. It should be thinned with vine-Then the yelks are often saved in shells, stacked in the double boiler a corn starch pudding. This, too, may canut added to it or grated choc

The work of the cook may be much simplified and the menu served much more varied if the foundation part be one of which she is master, and the trim-

Written for the RURAL WORLD.

Let us take Paul for example, in that he lys, Phil. 3, 12, 14: "Forgetting those sings which are behind, and reaching forth unto those things which are before,
I press toward the mark for the prize of the high calling of God in Christ Jesus. The question is, how do we fulfill this high calling? How much lighter life's burdens would be if more of us would practice the foregoing! What good can ne from looking backward, and lament come from loosing backward, and isment-ing about things that cannot be helped? Let us rather look forward and see where we can do better. If we have suffered through some mistakes others have made (often times from persons who are very near and dear to us) that does not help us now. We can profit by their mistakes and try and make some one's lot brighter and thereby forget our own troubles.

Many times when one feels depressed and
thinks her lot is hard, that is the time to ro and visit a sick friends who is shut How thankful we then feel for our

I was amused a few days ago when siting a sick friend, and the little three ar-old baby, as we were leaving, said Come again; come again." He seemed beenjoy our visit so much, and all be-ause the young lady who was with me ad taken off her glove and played arbles with him. I can see his bright title face now, when I told him I had large marble at home that our little boy had played with, and who, had he ived, would be a grown man now. He istened very attentively, and then asked: Did your boy play like I do?" We sometimes hear from mothers re-

marks like this: "I dread the time when ny daughters will be out of school, be-cause they will have nothing to do." Nothing to do? If only they would look round them, how much they would find to do. Some could help the very mothers who wonder what there will be for the daughters to do. I know of some daughters that have more to do than they are able to accomplish. Let the daughters learn to make good bread, cakes and pastry. If in after years they have help, they will know how to direct it. I know of a young girl who makes all of he shirtwaists and makes them well. Also teach the girls to iron. A mother whom I know cannot iron a doily as it should be. The young people must have something occupy their time, and they had bet ter be learning something useful than be continually on the street with apparently no aim in life, as we see them here. W

that. I love to read the articles in the Hon Circle, especially the writings of those whom we knew-Mrs. Helen Watts Mc-Vey for instance. Samuel Miller's descrip tion of his daughter's bay window wa enjoyed. We have no bay window, s must be content with a sword fern that commands universal admiration. We are fortunate in having kind friends, who give us cut flowers, such as carnations and sweet violets. These are friends that Margaret E. Sangster writes of, "Oh, friends, if you have flowers to bring me bring their bloom and fragrance now." appreciate. I will cease for this time erhaps I may come again and give my pinion concerning the topic "That the we tire somewhat of the oft-repeated advice to "meet your husband with a smile. Pettis Co., Mo. A READER.

know there are better things in life than

By all means tell us of the new order of the men greeting their wives smiles. The dear sisters do get with ition and a little for the brothers will be spice.

Written for the RURAL WORLD.

Mrs. Cody, I want to thank you for ours in RURAL WORLD of April 3. For three weeks we have been using the wild lettuce you speak of. We also use prickly lettuce or the L. Scariola of the botandrouth last fall made corn salad scarce in. The blood moves more rapidly, and this spring; ours grows semi-wild on a hilliside. It is a grand lettuce salad. Shepherd's purse is the earliest mustard, and we have had "boiled greens" twice from it. The common black mustard is now coming on fast, as are lamb's quarter conveying, as it visits them on that particular mystic journey when the man is laughing, from what it does at other times. For this reason every good hearty laugh in which a person indulges and the lengthen his life, conveying, as it visits them on that particular mystic journey when the man is laughing, from what it does at other times. For this reason every good hearty laugh in which a person indulges are conveying to the body, as it visits them on that particular mystic journey when the man is laughing, from what it does at other times. For this reason, we can be a supplied to the body, as it visits them on the particular mystic journey when the man is laughing, from what it does at other times. For this reason, we can be a supplied to the body, as it visits them or particular mystic journey when the man is laughing, from what it does at other times. For this reason, we can be a supplied to the body, as it visits them or particular mystic journey when the man is laughing, from what it does at other times. For this reason, we can be a supplied to the body, as it visits them or particular mystic journey when the man is laughing, from what it does at other times. the peck.

Our asparagus is just peeping. We will use it twice or three times a week for

six weeks or until peas come.

Water cress is delicious. We have no the shallow edges of a brook or spring

Anyone who has ever cultivated the dandelion will be surprised to see how large and fine it will grow under even have grown some very fine beds of it. C. D. LYON.

Brown Co., Ohio, April 23.

Written for the RURAL WORLD. USE HOME-MADE CANDY.

Here are a few recipes. I hope some of the H. C. readers will give them a trial and tell us how they like them. If any of the readers know how to make candy potatoes. I wish they would give us the and cocoanut, then formed into shape and eyes marked and then rolled in cinns They are good, however, and I would like to know exactly how to make them. We make all our own candy and know it is much purer than the colored stuff generally bought for little children to est. children love sweets, and I think they ought to be given some good candy. In one of my cook books this statement is made: "Parents do their chi'dren a great injury by denying sweets. The child requires a larger amount of sugar relatively than do grown persons, for the sugars assist in the processes of growth as no other food element can possibly do in its stead. By this we do not mean that a stead. By this we do not mean that a child should have free access to all the Child should have free access to all the sweets, by millions of mothers for their willstows. Soft and the like he can eat at any one time, but rather that each day a certain amount should be given him, syrup all pain; cures wind colle, and is the best remody for disarrheea. Sold by Drugrists in every part of the world. Be sure and as for "Mes. Window's Sold with the will indulge himself, if opportunity and take so other kind. Twenty-free access to all the sweets, candies, and the like he can eat at any one time, but rather that each day a certain amount should be given him, preferably at or immediately after each meal. If this is done, the child will not have the unnatural craving for sweets, in which he will indulge himself, if opportunity is offered." It is taken from an article on the "Partial Starvation of Chil-

dren," by Dr. Wm. O. Krohn of the East

ern Illinois Hospital for the Insane. We make chocolate creams, butter scotch, molasses candy, molasses .nut balls, hoarhound, lemon and peppermint, lemon and ginger drops, etc. It has been a long time since we have bought any candy, and to make two or three kinds at one time the candies will last longer and cost much less than would the same quantity bought. There were several good recipes for candy in the RURAL WORLD last winter which we tried and liked very much. M. E. W.

Written for the RURAL WORLD. THE HOME CIRCLE "MEET."

Oh, what a pleasant suggestion was that of Ina May's concerning the circle ing at the World's Fair in St. Lo move that she select the day and time o ting, so no mistakes will be made; the roll is called I'll try to be and when the roll is called I'll try to be there. It is a long time off, and many things may happen in that space of time As for me sending my picture to the pa per, to tell the truth, I have not had my per, to tell the table, and the cone I have does not resemble me much now. I think others might respond more promptly. Mrs. A. Po. I think your's me next. And Mr. Heaton's would not be out of place, or any of the gentle-men that have contributed to our col-

Ina May, I will tell you how I read Mr. Heaton's Latin. I just call it "Mo and proceed, so it never confuses me

I would like to get a liquid yeast recipe making light bread. I got yeast from a friend once that was grand. She did not make it, and I never could get the formula. After a time it lost its strength. This yeast resembles milk in color, and would pop like a gun when a bottle of was opened. I will send my recipe for getting rid

of bedbugs. If used plentifully they will not molest a bed: Five cents worth of corsublimate and a dime's worth of Label it poison. Apply to all crevices with a feather.

MRS. EMMA SEE ROBERTS.

Audrain Co., Mo.

SPECIAL HELPS

TO SETTLE DUST .- Did you know that a handful of coarse salt scattered over the kitchen floor before sweeping will gather the dust and lint and make the room look very much cleaner?

LABELING FRUIT CANS.-Save the flap of unused envelopes to mark your fruit cans with, name of fruit and year; they will stick readily and save time and trouble to make paste. Where one has labeled fruit cans once she will never

HOME - MADE SILVER POLISH .-Wash the silver in hot suds; apply fine laundry soap to a piece of soft flannel, dip it in common whiting and rub the silver. Wash again in hot suds, rinse thoroughly and dry with another pie soft flannel or chamois skin. This soft flannel or chamois skin. This com-bination will remove the most obstinate discoloration quickly.

TO FRESHEN A CARPET.-After of shaking and sweeping, put down the carpet as usual, and then proceed to rub it with a fiannel wrung out in soapsuds to which turpentine has been added. The right proportion is a tablespoonful of turpentine to a gallon of suds. only a small portion at a time, and rub it as dry as possible with a clean cloth before proceeding to the next spot. Keep the windows open or a fire burning till the carpet is perfectly dry.

LAUGHTER A HEALTH PROMOTER.

In the "Problem of Health," Dr. Greene says that there is not the remotest corer or little inlet of the minute blood vessels of the human body that does not feel some wavelet from the convulsions occasioned by good hearty laughter. The life principle of the central man is shaker to its innermost depths, sending new tides of life and strength to the surface, thus materially tending to insure good health to the persons who indulge there loes, new and distinct stimulus to the vital force

KEEP THE BALANCE UP.

It has been truthfully said that any disnce of the even balance of health s serious trouble. Nobody can be too careful to keep this balance up. people begin to lose appetite, or to get tired easily, the least imprudence brings on sickness, weakness, or debility. The should not be denied it; and the best tonic of which we have any knowledge is Hood's Sarsaparilla. What this medicine has done in keeping healthy healthy, in keeping up the even wild salad plants may not suit all tastes, healthy, in keeping up the even balance but we think them fully as palatable as any winter lettuce we ever grew, and we a preventive that it enjoys as a cure. Its use has illustrated the wisdom of nine. Take Hood's for appetite, strength, and endurance.



Two Big Pains

seem to be the heritage of the human family verywhere, visi Rheumatism

Neuralgia

but there is one sure and prompt cure for both, vise St. Jacobs Oil DO CHILDREN PAY

children pay?" said old man Scruggs, Jest wait 'til you've been married, say,

some twenty years or so.
You'll have more sense than to stand up
there and throw your time away, askin' sech fool questions. Pay! Great gosh! Of course they pay.

We go home tuckered out at night they'll climb upon our knees, And when we try to keep 'em down they'll cry for one more squeeze, And raar and pitch about us all, until fus

thing we know joints are free from achin' and our hearts are in a glow.

They pay us when their frank young love shines out in their jolly eyes; en when our ears are deafened, there's a music in their cries, eeter than all the fiddles and planners

Don't think it's so? Well, now, you wait,

The man whose children's hearts are his is the man who is truly blest; sight at home of his boys and gale

is more to him than rest.

wow! There wouldn't be half the fools in this weary world to-day til men only could understand wha big intrus' children pay."

-Browne Perriman.

Poultry Yard.

PIGEON HOLE.

Editor RURAL WORLD: Your space ould not, of course, permit my answering in detail the several correspondents who take issue with me on the subject of poultry breeding; furthermore, I have no desire to enter into a personal contro-versy with any one on any subject. I that theory would hold good, then a one have had, during the past 40 years, actual pound Bantam should lay about five egg experience with about a dozen of the different breeds of chickens, and they, at lay one.

I perhaps should amend my desire for the perhaps should be perhaps should be perha least, were average specimens. I claim, therefore, to know something of what I am talking about, though some of your Brown Mediterranean with yellow orrespondents seem to doubt it.

In such correspondence it is understood ns are submitted for what they in their acceptance. Even Mr. Smiley's 'Knows' and "does he knows" are merely his manner of expressing what he thinks he knows. Let no reader of the RURAL WORLD think for a moment where feathers are the legitimate and that I am not ready and willing to mainain my position against all comers. If fail in doing it, it will be the first time it ever happened. Let all the readers be

the jury, but don't all jump on at once. Theo. Hewes, than whom the state of Missouri nor any other state has prouced a peer as a poultry judge and breeder, has stated over his own signature. that there had been no perceptible improvement in the Plymouth Rock in 20 years. He ought to know, and if not, you have injoyed them. I have just set 362 Brown Leghorns and years. He ought to know, and if not, so B. P. Rock eggs in one 200-egg hotwards that there had been no real improvement in any other breed of chickens. Rock hens. This is to be trial hatch of the hot-water and hot-air machines. n the last 50 years, because of the absurd reeding to feather and other fancy points that doesn't amount to a hill of bear whole truth, and nothing but the truth A year or two ago a comparative test of all the leading breeds of chickens was nade by an Eastern agricultural institu-ion or experiment station, the exact loality I cannot now recall, for the purpose of ascertaining under good and exactly milar conditions the comparative of the different breeds. Now, some blith-ing idiot, who no doubt had it in for the feather fiends, suggested putting in a yard of common mixed chickens, mongrels, dunghills, if you please (and cross bred a dunghill to a score card worshiper). Well, the result was that this yard of low down mongrels, didn't do a thing to the "line bred," inbred, ring streaked and striped aristocrats, but go ahead and lay more eggs and prove to be the most profitable yard of the whole batch!

No doubt this surprised a great many, but would be no surprise to 90 per cent of the farmers' wives who read the RU-RAL WORLD and have done so much towards making Missouri the leading towards making Missouri the leading poultry state in the Union, for it exactly ccords with their own experience, that mixed breeds are hardier, more active and vigorous; more prolific, and more profit-able, than pure breds, and this is the true eason why 90 per cent of the poultry that comes to the St. Louis market is of mixed blood. It may be true, as one con respondent states, that pure bloods are too valuable to send to market; but asid from their fictitious or fancy value, it is strange that their real value has not been recognized in the past 55 years, and the same advancement made as is noted in the breeds of sheep, hogs, cattle or horses. The fact of the matter is the real value of pure bred fowls has been smotheredacrificed, in fact—in absurd efforts to onform to an arbitrary and absurd socalled standard of perfection. Such extra value does not exist, and never can exist

until there is a reform in breeding.

About a year ago there was a dressed poultry exhibit at one of the leading Eastern poultry shows. No dunghills were entered in competition, but about ame thing was, the Rhode Island Re a breed supposed to be a mixture of Pit Game, Shanghai and most any old rooster that came down the pike. Their plumage was much like and as beautiful as a dappled dun mule. Now the Rhode Island Reds had not broken into the standard at that time; all the same, they walked off with the blue ribbon as the most perfect dressed fowl for market, in competition with all the so-called American breeds

with their dunghill-Asiatic ancestry.

Now, such evidence as this would not convince a feather crank, and is not expected to, but there are a whole lot of ommon, every-day people who will be glad to know that it isn't nee lieve all the long-winded fairy tales they see in poultry journa's about fabulous breeds and fabulous profits, article, that are written mostly for the free advertis-ing it gives and colored usually to favor that particular breed that they have to

I will say to Mrs. Baldwin that I ar tolerably familiar with the American Standard of Perfection, but do not reverence it by any means. It is merely the recorded opinion of certain self-styled, prominent poultry men as to the proper marking, size, etc., of the several breeds. They are no more infallible than other people, and are no more prominent than plenty of other poultry men who disagree with them, and who have no use for the T-----T

gruntled exhibitor, as one corresp nates, for I have my first entry to in a poultry show, so can classed as any sort of an exhibitor. I attend poultry shows to study the differ ent types of fowls and human nature as exhibited by the average chicken crank. I find both very interesting. Nor would I have any one think that I am down or the different types of pure bred fowls. They all have their place and their fixed characteristics are essential in building up any real improvement, which, under mprehensive common-sense system, would make a wonderful advancer this great industry in the next decade; but first we will have to stop all this gabble of "barred to the skin," "beautiful buff ander color," "pure-white-stay-white strains;" quit going into raptures over a "silver laced feather," or into coniption fits over a gray streak in a Brown Leghorn's sickle, and begin judging fowls according to what can be proven can perform, "how soon," "how o

he knows." No, I don't know that de creasing the size increases the egg pro duction; furthermore, I don't believe it. What I do believe is that excessive egg producing, non-sitting classes like the Hamburg or Mediterraneans, are in danger of deterioration in both size and vigor if great care is not exercised in breeding at that season when the vitality of the fowls has been exhausted by a long eason of constant egg production. I am leased to inform Mr. Smiley that my argest Leghorn pullets, which weighed J. G. KINDER HAS GOT OUT OF THE PIGEON HOLE.

over five pounds at eight months old, are quite noticeably the best every-day layers on the place; so much for common sense and experience vs. fairy tales and feathers. I will also call Mr. Smiley's attention to the fact that the Mediterraneau class as represented by the Minorca, is refutation of the theory that egg pr pound Bantam should lay about five eggs

I will reply to one of Mr. Smiley's "does

Brown Minorca by wishing merely for and of Minorca size: the ho fers yellow-legged chickens and I have heard that her preacher does also; there are worth; there is nothing compulsory fore I am for yellow legs or any other point fancy or otherwise, that adds rea value to the breed.

Come on, all ye fancy feather breeder

main object, and I will try and intere you for a spell.

J. G. KINDER.

INCUBATORS.

Editor RURAL WORLD: Our lady riends are having a good time exchang ng experience with incubators. Thei ers are interesting and instructive

the hot-water and hot-air machines. will report the hatch later on. St. Francois Co., Mo. E. W. GEER.

POULTRY POINTERS.

AT BRITE'S POULTRY YARD.-The desiring eggs from Mrs. Wm. Brite, should write her at once, as she will not sell eggs after May 15. But will sell turkey eggs now for \$2 per 12 and B. B. Rock eggs for \$1.50 per 15, until May 15, or turkey eggs for \$10 per 100 and B. P. Rock eggs for \$4 per 100.

ALBERT GUTGESELL. Alfred an Scanlan avenues, St. Louis, Mo., breeder of prize winning barred Ply. Rock chickens informs us that he will sell breedin pens containing his choicest stock for one-half their actual value. His birds have been winners at the St. Louis shows for the past three years. He will sell pairs, trios or larger lots as desired. He

SKIM MILK -Skim milk is as valuable for fowls as that which contains the fat, provided cornmeal or linseed meal is added. All the bone and muscle-producin elements are left in the skim milk, and the butter fat removed is of but little value to poultry. The milk should be fed while warm and fresh if a cream separator is used, and not sour milk, though fresh buttermilk as excellent.

SELECTING A BREED.-Poultry breeders have several times endeavored to settle the question as to which breed of poultry is the best for general purposes. The Brahmas, Plymouth Rocks, Wyandottes, Leghorns, Langshans and Houdans have been experimented with, not | 8 only for egg production but for market purposes. The Houdans and Wyandottes have also been tested, but the majority of the breeders prefer the breeds which grow to a large size, mature somewhat arly and lay until late in the

J. B. FLEMING. Mexico, Mo., writer "I am well pleased with the results of my advertisement in the RURAL WORLD. I have had more orders than I could fill. My eggs have hatched well and I have s fine lot of young chicks. I have been breeding pure-bred poultry for the pleas ure there is in it and for love of the feathered tribe since 1857, and have bred many kinds. I have bred the White Rocks since 1882, and am still with them, but do not know it all yet. There is still more to learn. I have not got all of the good

everybody bred poultry for the money there was in the business. He is wrong



Six styles—25 to 55 inches—best steel wires, heavily galvanised. Expansion and contrac-tion provided for. Every rod guaranteed, Sold by local agents. If no agent in your town write to the makers. American Steel & Wire Co., Chicage or New York.

BEYMER-BAUMAN DAVIS-CHAMBERS PARKETT WACROF. ATLANTE ERABLEY BROOKLY JEWSTE HOTHU SOUTHER: SHIPMAN COLLIEB RITEROURI SOUTHERN

Oil, and employ a practical painter. cannot be obtained, you can get satisfactory results by using any of the brands of Pure "old Dutch process" White Lead named in the margin and the National Lead Company's Pure White Lead Tinting Colors, by which any shade desired can be made, the greatest economy and the most JOHN T. LEWIS & BROS CO MORLEY BALEM

permanent satisfaction secured. For any color or shade required, use NATIONAL LEAD COM-PANY'S Pure White Lead Tinting Colors. Pamphlet sent tree

O obtain satisfactory results in paint-

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ing, we recommend that you use

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EGGS FROM FULL BLOOD STOCK.

CHAMBERLAIN'S PERFECT CHICK FEED

CHAMBERLAIN'S PERFECT HEN FEED Will make your hens lay. 190 ib. sack, \$1.75. Feed sent from St. Louis by freight, Book orders early Only makhorders booked. Look up my record as 't Louis Co. Fair. Send P. O. Order on Kirkwood. REFERENCE:—Bank Louis Co. Mo. CHAMREELAIN, Kirkwood, St. Louis Co. Mo.

POULTRY.

BLACK LANGSHANS exclusively. Eggs for hatching. No stock for sale.

JACOB HETBICK, Wahoo, Neb. WHITE ROOKS exclusively; eggs, \$1.50 per 15.

ROBT. B. HUME, Florissant, Mo.

PRAIRIE HOME POULTRY YARDS.

BUYS 100 EGGS. \$1.25 one sit ting. \$2, 10 Bronze Turkeys eggs Either Brown or White Leghors ting. \$2, 10 Bronze Turkeys eggs, Either Brown or White Leghora. Barred or White P. Rocks, or From Fanoy stock for sale. Circu-E. W. GEER, Farmington, Mo.

EGGS, "YES" EGGS,

W. H. TURKEY EGGS (16 to 21 lb. hens), 11, 12; W. Rocks, 16, \$1; 100, \$3.50.
M. CAMPBELL, Rosemond, 111.

Buff and White Rocks.

ks are pure Burdick Nuggets, White
Empire strain; e.gs. 23 per 15 straight.
ber of the Buff Rock Club.
T. S. LEWIS, Glasgow, Mo. WANTED 1000 Fox Cubs always in the market. B. d. Mason, Eirzsville, Mo

May 1, will furnish Eggs from our three yards of choice Barred Plymouth Rocks at the very low price of 75e per sitting 12 of fifteen. Hemember our Rocks win in the Show Room. We will page prumptly. Let us have NEPENTHE POULTRY RANCH, NEW FLORENCE, MO

Mr. & Mrs. J. H. Kallmeyer, Prop EGGS FOR HATCHING n prise withing Mannacta broads Turkey 10d tom 38 lbs.; hens 20 to 25 lbs. Eggs 1, \$6.00 per 20. B. P. Rocks and Buff Coc 911/4 to 94/4; eggs \$1 per 15. \$5 per 100, Mrs. John L. Galser, Charleston

EGGS FOR SALE ocks, W. P. Rocks, Buff Cochin and W. P. 1,50 per setting. B. P. Bucks 1st pen \$3,50. wost eggs from highly scored birds. Mrs. J. W. ATTERBURY, JR., Madison, Mo.

SPECIAL Empire Strain White Rock Eggs \$1.00 per 15, Mrs. J. E. MAY, Wilson, Mo.

EGGS B. P. R. Eggs, \$1,00 per 15; \$1,50 per 30

Barred and Buff Rocks.

Pure Hawkins blood Eggs, \$3.00 per 15, \$5.00 per 30 from prize winners.

Mr and Mrs. M. M. SMITH. Farmersville, Illinois

E665 From B. P. Nocks. \$1.50 per 15.
Miss Anna Anderson, Monett, Mo. WHITE P. Books, bred for eggs and early maturity; eggs, \$1.50 per ib.
E. S. DUNLAP, Fulton, Mo.

If he has a wife, he should love her and give her his protection and not support her just for the money she makes him. If he has poultry and does not love them and find pleasure in raising thum, he should give them to some one else. Fowls fine plumage: Toms at maturity weigh from 40 to 45 lbs.; won 2nd and 3rd at World's Fair, and are living creatures and will return the care bestowed on them."

PRESERVING EGGS.-Do you know of

any recipe for keeping eggs fresh through which stand cold climate well. The chicks should grow very fast, be compact and realize the highest market prices for qualsummer and fall to Christmas? E. J. N. might try liming. There are many form ulas for making the lime solution. One of the best plans is packing in jars. Care should be taken to select a receptacle from which the eggs can draw nothing; hence glass jars or stone crocks are pref-erable. Six-gallon glass jars will hold 20 dozen eggs. Slack about a peck of lime; to this add six pailfuls of water and three quarts of salt. This should all be the thin limewater into the jars, cover them with cloth, and on this spread a coating of the thicker limewater. The ution must stand in the jars so as to cover the eggs. A peck of lime will be nough to preserve about a hundred doz en eggs. A correspondent, Mr. A. A. Kel y, complains that he has hever been ble to keep eggs satisfactorily in brine or salt and lime, the yelks becoming hard and the eggs useless. "Packed in dry salt," he says, "so that they do not touch, they will keep without apparent change for months." He adds that our consul at Capetown reports the following method of preserving eggs as successful in South Africa: An ounce of iodate of calcium was put into a gallon of water and stirred The eggs were dipped in this solution, then allowed to dry. They showed no coating or discoloration, and kept sweet for six months (South Africa mind). The consul says further that, if placed in lime and salt of equal proportions, the eggs can be kept for over a year.]—Country

8. Turkeys, B. Langshans, Elmburst Poultry Yards, Wellsville, Mo., Mrs. M. L. Singleton.

UNEEDA Few of my Orange Strain Buff 1917 orange Strain Buff Score 90.0 98. Prize Stook, \$1.50 for 15. Mrs. H. M. Fife, 5579 Wells Av., St. Louis, Mo.

OUFF LEGHORN, S. L. WYANDOTTES, B. P. Rook, W. H. Turkeys, Toulouse Geese.
Mrs. M. E. OREWILER, Shelbyville, Mo. BUFF ROCKS S. L. Wyandottes and S. S. Hamburgs. Good game, try J. E. HAYNES. Ames, Ill.

LT. BRAHMAS exclusively: Eggs \$1.00 per 15. M. B. Turkey eggs \$2.00 per 10. Mrs. C. S. BOHRER, Vandalia, Mo. WENTY YEARS a breeder of B. P. Hecks or \$1.00; 45 for \$7.50. Address F. M. LAIL, Marshall, Mo.

Eggs, Eggs For Sale. s are up to date in color, shape ties, which I have achieved by of Barred Plymouth Rocks ex-20 years. Per setting of 15 eggs, C. C. ALEXANDER, Fuiton, Mo.

EGGS \$1.50 PER 15. lass Lt. Brahmas, Buff Cochins, Black Barred Ply. Rocks, S. L. Wyandottes H. T. REED, CAMP POINT, ILL.

1893 Eggs, \$1.00 Per 15.1901 a-class Barred Plymouth Rock, Black Lang-and single comb Brown Leghorns. Sunshine Poultry Yards, Irondale, Mo,

IDEAL POULTBY FARM.
TONE Proprietor, breeder of S. L. WyanWhite Langshaps, White Indians, Buffa, S. C. B. Leghorns, Golden S. Bantams,
Guiness, Mammoth Bronze Tarkeys, and
China Geese. Eggs in season. (Box 9).
. Bonce Co., Mo.

C. B. LEGHORN EGGS. 15, \$1,00:

rred Rocks exclusively, best strains, farm range, large and vigorous; eggs, \$1.00 per 15. Mrs. E. K. SIMPKIN, Griggsville, Ill ABGE English Berkshires, Toulouse Geese, B., P. Book and Rose Combed White Leghorn chick-ens. Eggs chesp. Write me. J. E. Burgess, Macedonia, Phelps Co., Mo.

Duroc-Jerseys and W. P. Rocks. Young stock after Sept. 1st. Eggs for hatching, \$1 per 13 or \$2 per 30. Address, R. S. Thomas, R. F. D. No. 4. Carthage, Mo.

Barred Plymouth Rocks

(Exclusively)
Eggs from Best Matings, \$1.00 for 15, \$3.00 for 50, 00 for 100. Also a few choice Poland China E. E. AXLINE,

MAPLEHURST'S EGGS AT 1-9 MAPLEHURS IS PRICE.
Fresh, Fertile and True to Name.
Eggs from Al birds in most popular or profitable
classes vis. L. B.; B. L.; B. P. B.; W. W.; B. M.
W. and B. L.; G. S. Bants; P. D. and M. B. T.
Eggs: From exhibition matings \$1.25 per 13;
25.30 per 30; % hatch guaranteed. South-Downs,
Polatds, Collec and Shorthorns; low.
W.B. DOAK, Russellville, Tenn.

Fine plumage: Toms at maturity weigh from 40 to 46 lbs.; won 2nd and 3rd at World's Fair, and to as the premiums. High class Light Brahmas. Autorat and Felch Strain Barred P. Rook and Slack Langelann as good as the best. Eggs from Turkeys, specific Dilloten eggs, 25 for 15.

Mrs. Thes. W. Ragselhe. Paris, Mo

WHITE Chinese Geese, W. H. Turkeys, Mammoth Pekin Ducks, Li. Brahmas, Eggs and Stocks old right from SILVES PLUME POULTRY FARM Brookfield, Linn Co.. Mo.

WHITE HOLLAND TURKEYS, Emden Geese, Pekin Ducks, White Wyandottes, S. C. White skin Ducks, White Wyandottes, S. C. White rns. Eggs reasonable, Write, MRS. BELLE SALDWIN. Shelbyville, Mo.

FOR SALE—CANARIES, Home raised, \$2.50 a pair: extra fine singers. \$3.50 a 1 air: Imported Hariz Mountun Singer, \$3.50; an imported trained whittling Canary, \$4.00. Females 90 cents apiece. Mrs. M. A. Buckneil, Alhambra, liv

S. C. B. LEGHORN EGGS
AND B. P. ROCK EGGS
T. m. for 18. SLER for 60. Leghorn Eggs, \$4.00 per U for 15. \$5.00 for d0. Leghorn Eggs, \$4.00 pe Poland China Pigs for sale. F. D LUCE, Shelbina, Shelby Co., Mo.







TRY Allen's Lung Balsam

now other companies' agents ''go oe'' about the PAGE, trying to show how their fences are just as good, or better? They've got a hard job. PAGE WOVEN WIRE FENCE CO., ADRIAN, MICH.

D MOORE'S HOG REMEDY and cure Mange and Canker, kill Lice and Fever Germs, remove Worms and PREVENT OHOLERA, at a cost of n Five Cents Per Hog Per Year. A postal gets particulars and book on "CARE OF HOGS." Address foere's Co. Stock Yards, Kansas City, Mo.







DON'T PAY. Keep yours and Cure the Sick Ones at HOGS 5 Cents Per Hog Per Year.
A postal will bring full
Particulars and book on
the "CARE OF HOGS." Address
Moore's Co., Stock Yards, KANSA
CITY. MO.



Choice Lot of Sept. and Oct. Gilts to breed in May. A few males same age. Sold or on other ages S. G. hichards, Sturgeon. Mo.

BERKSHIRES.

LARGE ENGLISH BERK-HIRES-48 buy B. P. R. Chiekens: White Turkeys. GEO. W. MCINTOSH. Monett, Mo.

POLAND-CHINAS.

OLAND Chinas—We have some extra fancy gilts of 150 lbs, and some fancy pigs of both sex of fall farrow to offer the trade. They are perfect coat and color, sired by U. E. Chief Tecumseh 2d U. B. Perfect i Know, Prince Hadley and Marka' Willedster. Price. 310 to 311: money returned if they a not satisfactory. L. A. Spies Breeding

Walnut Valley Farm Herd Poland China Swine. Black U. S and Tocumeeh pigs and Jersey Cattle for sale. Black Langahan Eggs \$1.50 for 15 Ernest W. Wallen, Monett, Mo.

VIVION & ALEXANDER,
PULTON, MO.

Streedars of the best estrains of Poland-Ohine
segs. Registered Jersey eable and Plymouth
tock chicks. Young stock for sale at all times.

POLAND CHINAS, Gilt edge and individual merit come ind B. L. ORGAN, Carmi, White Co., Ill.

DUROC-JERSEYS.

ROSE HILL Herd of Duroc Jersey
Hogs. Early pigs now ready to
ship. A few choice bred Gilts and
six good lengthy boars ready for
service, for sale. S. Y. Thornton.
Blackwater. Mo.

Duroc Jersey and Berkshire Hogs! Extra ing. Satisfaction guaranteed or you may return at my expense. S. C. WAGENER, Pana, Ili.

50 DURCCS ready to ship; boars all ages:
no gilts; all registered.
(N. B. SAWYER, Cherryvale, Kansas.

FOR SALE A nice lot of fall pigs, sired by Mis-Perfection, dams are Look Me Over and B. U. S. breeding. Hages for setting from best strains of B. F. R. chickens; also breed Evertoric cattle. Prices reasonable. Huntavijie, Randojph, Co., Mo.,

GET OUR FREE LIST of Farm Bargai Bultural, Mineral, Coal and Timber Laud Hi Lincoln Trust Building, St. Louis

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Read "The Corn Belt," a handsome monthly paper, beautifully illustrated, containing exact and truthful information about farm lands in the West. Send 25 cents in postage stamps for a year's subscription to The Corn Bell, 209 Adams St., Chicago.

FARMS AT BARGAINS.

n sale of farms, in the oldest and best parts of state, Marion and Italis if fine improved farms, with living water, thes and schools to be found; six, sight

The Pig Pen.

THE KANSAS CITY HOG SHOW. Important Notice to Exhibitors.

Through the press intending exhibite and contributors to the Poland-China division of the Kansas City Swine Show and sales have been advised to write to Frank D. Winn, Kansas City, Mo., for atalogs, rules and other printed mater relating to the show and sales. The result has been that he has been flooded with applications for such data and he has decided to inform breeders as far as possible of these matters through the press and thus seve time and labor and a large expense to the association by writing each applicant.

Every cent of the net money raised from every source will be offered in prem-ums, and the committee wants it dis-inctly understood that there are absoutely no salaries to be paid, no dividends r money to be expended except what is should be as much interested in the suc-cess of the show as the committee, will nderstand the importance of deriving as much information as possible from the ccounts of the show given in the press.
All information necessary for the present, and all that can be furnished until

note of the following facts: Judges or. Poland-Chinas, T. B. Hart, J. M. Klever, J. C. Hendrick and W. Z. Swallow. All ages will be computed from September 1. Prize list for Poland-Chinas will include the regular state fair prize list, with which all breeders are familiar, and the following special prizes which have aleady been published in the agricultural ess and which it is requested breeders ill copy and save: SPECIAL PRIZES.

1. Boar and not less than four of his

get, any age or sex.
2. Sow and not less than four of her pigs, under six months. 3. Sow and one of her produce, any age

5. Two swine, any age or sex, produce

6. Boar and sow, six months and un

ler a year. Boar and sow under six months. Two boars, any age.
 Two boars, under six months.

Two sows, any age.
 Two sow, six months and under

Two sows, under six months Four pigs, under six months, get of

14. Six pigs, any sex, under six months.

So far as the sale is concerned it is im sible to determine the number of head each will be allowed to contribute, or the cost per head, until the number and class of breeders so desiring to consign are known, and to this end it is earnestly requested that those desiring to con-tribute to the sale will write to Frank D. Winn, Kansas City, at once, stating the number each desires to sell; so that the matter may be decided upon by the

It is now the intention, in order to save xpense, to have the catalog, prize list, rules, etc., included in one pamphlet, and as the prize list must be out not later than July 1, those desiring to contribute had better get in their applications to the

ecretary. retary advises that he already as a large number of applications, and that they continue to come in; those applying last will almost surely have to be cut out, so breeders should get in their applications without delay.

The "Never Root" Bog Tamers are the

THE BROOD SOW.

Let the sow alone until she gets hungry. A sow after farrowing should not be disturbed, but left to come out and hunt for food and drink when nature for suitable show hogs. They were alsix good lengthy boars ready for service, for sale. No screenings stated. Write for itselves strong as a hard time and is weak and foverigh as a hard time and is weak and foverigh as a screenings. a hard time and is weak and feverish as added as they grew older.
a result, writes J. J. Edgerton in "Farmers' Tribune."

After three months of age their feed was composed largely of green clover and

> condition—a handful of oil meal in the slop once a day for a week before farrowand dispirited, but is strong and in a condition to take some notice of and look after her pigs. When she wants to lie
>
> HOGS ON THE DA lown she is not so weak as to be compelled to drop the moment her legs begin to bend, killing any pigs that hap to get in the way; but will lie down quiet-ly and easily, giving the pigs an opportunity to get out of the way and if she does happen to catch one will usually get foff before it is injured. We have experienced little trouble with sows lying on their pigs when they were in the proper "Ploughman." If this waste can be converted into something regularly no market.

her allowance gradually, keeping her on of plenty of milk to raise hogs success pretty light rations for three or five days. fully, and if we had to buy this we would There is room here for the display of a great deal of judgment, as owing to a barrel need not be the old-fashloned sour variation in condition and individuality HERRY DELL, Hannibal Me havoc among the pigs.

FROM ROSE HILL HERD.

Editor RURAL WORLD: Please have y advertisement changed as per accomying copy. I have six Duroc-Jersey boars ready for service that are of the lengthy, heavy-boned type, also some choice bred gilts for sale. I have 230 pigs to date, all of which are thriving nicely. The earliest are now ready to wean, and their dams are bred to farrow again in August.

Sales have been good of late. I lately shipped boars to Bellbuckle, Tenn.; New London, Mo.; Warren, Ind.; Van Alstyne, Tex., and will ship one this week to Fre donia, Kan. Besides, I have sold quite a number to parties that have come to the farm after them. I lately sold five bred gilts and a boar to Messrs. Steding & Skinner, of Slater, Mo., who have deter mined to establish a herd of registered stock. They used splendid judgment in selecting their foundation stock. They also bought a pair of my best early pigs for May delivery. My pigs are sired by six of the best boars I could select and I think I have more strictly first-class pigs than ever before.

The weather is quite warm-86 degrees We have had no rain for over two weeks and the ground is quite dry on the surface. Apple trees are in full bloom, though trees that bore a heavy crop last year have but few blooms. Blackwater, Mo. S. Y. THORNTON.

HOG HISTORY

ent, and all that can be furnished until catalogs, premium lists, etc., are out will be given below and applications for printed matter unless some specific information is desired, will be placed on file and the same will be sent to applicants just as soon as ready. It will be impossible to have catalogs, rules, etc., out for some little time yet, but as soon as they are out they will be mailed to every applicant.

The secretary asks breeders to take note of the following facts: Judges or Polland-Chinas T. B. Havit J. W. More and the people of Jamestown had to build ment. They are everything. These were the ancestors of the "rasorback" hogs of the ancestors of the "rasorback" hogs of the ancestors of the "razorback" hogs of the southern states of to-day.

Improvement of breeds began when Gen eral Washington received a pair of blood ed pigs from the Duke of Bedford. Washington left these pigs in the care of English farmers, who brought them over, and he sold them. They were called the Bedford or Woburn breed, and in some places were called the Parkinson breed. They had deep, round bodies, thin hair, short legs and their color was white, broker

with dark blue or ashy spots.

They spread through Maryland, Virginia, Delaware and Pennsylvania. They were hardy, vigorous, prolific and easily kept. They ranged in weight from 200 State may be protected against Scables, pounds at the age of a year to 700 pounds we do hereby declare the following quarter the control of 00 months and processing th at the age of 20 months.

These are supposed to be the same breed of swine that were taken to Chester Coun ty, Pennsylvania, by Captain Jeffries These are claimed to be the Bedfordshire hogs. He created a great interest in swine breeding. Then came the English China hog, a broad bodied, deep-carcass, lop-cared, short-legged, short-nosed, heavyjawed hog, with hair shaded with reddish bluish and blackish spots.

From these breeds came the Chester White hog of Chester County. He was bred purely white, and years of careful breeding developed the strain wonderfully, placing it in the front rank as a com nercial animal.

Ohio breeders crossed English Norfolk swine, thin-rinded, square-bodied, short-legged, black-and-white, on the Irish grazier, a grass-fed, pure white strain, getting a valuable strain. This was crossed and recrossed with a cross of Byfield and Otterdale, making a still better strain. This in turn was crossed with the large grass or Leicestershire breed of England, a pure white, and the result was a fine animal with black spots in the hair and blue spots on the skin.

The French Normandy strain was intro luced in 1862. It was a boar of good size, a quick grower, curly-haired and shortlegged. It was used by Isaac Todd and in 1865 it was crossed with the Chester White, with very satisfactory results.

His son, S. H. Todd, developed the breeds very greatly. He produced the famous Todd Chester White, a first-rank animal. Other breeders have extended the work of breeding and crossing up to the present time.—N. Y. Farmer.

FEEDING PRIZE-WINNING PIGS.

The method of feeding the Yorkshire pigs which took the sweepstakes at the provincial show at London, Canada, last year, is thus described in substance by their owner, J. E. Brethour: The first

ers' Tribune."

Give the sows plenty of exercise before later of green corn and rape. For six farrowing, and feed so the bowels will be free and their systems in a lax, cool condition—a handful of oil meal in the small field of artichokes, which they dug and ate, besides receiving a small quaning is inducive to this condition—and there will seldom be any difficulty experienced in farrowing. It will be accompase economical for pork making as pro-lished with comparative ease, and when it is over the sow is not weak, feverish of muscle and kept the pigs healthy and

HOGS ON THE DAIRY FARM.

I have found in my experience that hogs go naturally with dairying and that it pays to keep them on the dairy farm even if for no other purpose than to dispose of the skim milk profitably. Few dairy verted into something profitable, no matcondition.

Do not get in a hurry for the sow to come out and eat. She will come when the she gets hungry or thirsty. She should not have any food of a heating nature when she does come out. Place some good clean water where she will find it when she comes out, and this is all she will need at this time. Then commence giving her some thin slop and increase her allowance gradually, keeping her on of plenty of milk to raise hogs successmixture that was enough to make any variation in condition and individuality mixture that was enough to make any there is a great difference in the way in hog, sick, but it can be composed of sweet which different sows may be fed at this time. It is best, however, to keep on the safe side as heavy feeding for some time after farrowing, if it does not injure the sow, is very likely to create have among the pigs.

nally finds milk in sufficient quantities to be extravagant with in it feeding pigs. This extravagance is really economy when we consider on how many dairy farms the same amount of skim milk is actually

Not only this, but the hogs require good pasture to-day as well as the cows, and

when you raise grass and clover for one you have an excellent food for the other. The hogs that are reared when young on good sweet milk, turned out in the clover field in summer and topped off with corn, make the ideal creatures for the market. We need the corn for the dairy cows, too, and one class of farm animals eat what the others do not like so well. The cows will eat the young corn stalks in winter, while the hogs will turn away from them. But the corn forms the ideal food for fattening the hogs. In this way the two animals fit together and make excel- snuffles in passi gleet is due to an insec ient ones for the dairy farm. Since I have known as the she increasing my herd of swine I have hogs are actually necessary to the successful development of a dairy, and the man who does without them is losing bunched, with their heads towards the money that he otherwise might make.

Because your dairy is paying now, it one turned close to the ground; if your dairy is paying now, it one turned close to the ground; if you have a supplied to the ground to the does not follow that it would not pay even

The Shepherd.

Norman J. Colman, President, 1214 Chemical Building, St. Louis, Mo. L. E. Shattuck, Secretary, Stanberry,

SCABIES.

Quarantine Proclamation. Executive Department, State of Missouri

City of Jefferson. By authority vested in me, and in acrdance with Section 10652 of the Revised of 1899, I, A. M. Dockery, Governor of Missouri, having approved the following quarantine regulation, adopted by the State Board of Agriculture for the sheep, do hereby promulgate the same and order that the same be observed and

enforced throughout the State.
First—That the sheep industry of the antine regulations, which shall be in force from the 1st day of April, 1901, unless changed by the order of the State Board of Agriculture.

nd-All sheep which have been ex-Second—All sheep which have been ex-posed to Scables shall be dipped at least once previous to movement from point within this State to another and in cordance with the formula and regula ions of the United States Bureau of Animal Industry: Provided, that this rule

shall not apply to sheep intended for im-mediate slaughter. Third—Sheep that are affected with Scables shall not be shipped or driven from one point in this State to another unless said sheep shall have first beer dipped twice at intervals of ten days and in accordance with the formula and regulations of the United States Bureau of

in accordance with the formula and regulations of the United States Bureau of Animal Industry.

The dips now approved are:

1. Tobacco and sulphur dip, made with sufficient extract of tobacco to give a mixture containing not less than five one hundredths of one per cent of nicotine and two per cent (sixteen pounds in one hundred gallons) flowers of sulphur.

2. The lime and sulphur dip, made with eight pounds of unslaked lime and twenty-four pounds of flowers of sulphur to one hundred gallons of flowers of sulphur to one hundred gallons of water. The lime and sulphur should be boiled together for not less than two hours, and all sediment allowed to subside before the liquid is placed in the dipping vat.

All railroad, transportation and stock yard companies, and their employes, and all other persons are hereby forbidden to transport, drive or in any way handle sheep in Missouri except in compliance with the foregoing rules, under the pains and penalties of Section 10653, Revised Statutes, 1899, which provides a penalty for violation of a fine of not less than \$50 nor more than \$50, or by imprisonment in county jail for not less than one month nor more than one year for each and every offense.

Sheriffs and constables in Missouri are hereby directed to enforce these regula-

nor more than one year for each and every offense.
Sheriffs and constables in Missouri are hereby directed to enforce these regulations and to arrest any and all parties who may be guilty of violation thereof. In testimony whereof, I hereunto set my hand and cause to be affixed the Great Seal of the State of Missouri. Done at the City of Jefferson this 19th day of April, in the year of our Lord nineteen hundred and one. By the Governor, (Seal.)
SAM B. COOK, Secretary of State.

Direct from Distiller to Consumer \$3.20
POUR LESPON PAIL QUARTS.
Express Pail.
Saves Middlemer's
Profits. Provents
Adulteration. OR thirt;

HAYNER'S DAYTON, GHIO, U.S.A. We will send yes for the work of the work Proposition:

No other distiller sells to consumers lirect. Others who offer you whiskey n this way are dealers buying and sell-ng. Our whiskey has the Hayner rep-tation behind it.

References—Third National Bank, any business house in Dayton, or Com-mercial Agencies. THE HAYNER DISTILLING CO., P. S.—Orders for Ariz., Celo., Cal., Idaho, Mont., Nev., M. Mex., Ore., Utah, Wash., Wyo., must be for 30 qta., by freight, prepaidDISEASES OF SHEEP

a Paper by Dr. T. E. White, Read at the Meeting of the Missouri Breeders' Association.

(Concluded from last issue.) GRUB IN THE HEAD.-Under the headparasitic disease known as Ozena o Nasal Gleet, sometimes called "snuffles," but more familiar to us perhaps by the term of "Grub in the Head." As cases of this class have been somewhat frequent in my practice, it is well perhaps to give

The snuffles, as here applied, differ fro

the snuffles in catarrh, which attacks sheep exposed to sudden changes of weather in the winter, whereas the n as the sheep bot. This bot or grub oduced by the sheep-gad-fly depositing its eggs in the nostrils of the sheep In the heat of the day in July and Augus you may notice your sheep closely bunched, with their heads towards the center of the clump and the noses of every does not follow that it would not pay even more if you had hogs on the farm. It distance, but always with their heads still certainly will prove a good experience to to the ground. Occasionally they strike or stamp violently with the though an enemy was near by; this er-ratic behavior is due to this sheep-gad-fly attempting to deposit her eggs in the nostrils. When the egg is once deposited, it is immediately hatched by the warmti and moisture; it then bed MISSOURI SHEEP BREEDERS' ASSO-CIATION. and moisture; it then becomes the young grub or larva, and gradually it ascends the nostrils and finally attaches itself to the membraneous lining in the sinuses of the skull by means of the tentacles or he which grow from either side of its mouth. This grub or larva remains all the winter in the sinuses of the skull. The next spring when full matured it lets go with its tenacles and gradually descends the nose and drops to the ground, where it rapidly burrows in the earth. In abou 48 hours it become a pupa, or chrysalis, then in a period of from six to eight eeks a small portion of the head end of this chrysalis becomes detached when it escapes from the shell and bec Oestrus ovis or gad-fly of the sheep, and is now ready to seek its mate.

The descending of this bot from the nostrils of the sheep causes a great deal of irritation and inflammation of the delicate mucous membranes of the nose, and in consequence the snuffles is again pro iced. There is a very slight mortality, practically speaking, among sheep from this grub in the head, but if symptoms in the early part of year should occur, such as loss of condition without good cause, with snuffles, bloody mucous from the nose, peculiar movements of the head, indicating that the head is diseased, it might be well to inject some medicine up the nostrils with a six-inch nozzle family syringe. Use about a teaspoonful of equal parts of linseed oil and turpenting

But before treatment you had better examine thoroughly the head of a dead sheep, if it is possible to do so, to familarize yourself on just how to insert the nozzle properly. When a sheep dies supposedly from grub in the head, always make sure that such is the case, by holdng a postmortem on the hea

Since you know the life history of the sheep-gad-fly and its larva, plans and methods of your own may be formulated for the protection of your flocks from the attacks of this fly. My father used to plow furrows here and there in the pasture field for the sheep to hide their noses in the dust and loose ground, and every two weeks he painted the nose of each sheep with a mixture of tar and fish oil,

o ward off the attack of this fly. The gad-fly is a dull colored insect with striped wings almost as long as its body, the head yellow, and the abdomen comosed of five rings, its back and belly be-

LUNG WORMS.-Inquiries often com to us with history and symptoms that point strongly to a parasite in the lungs. This affection, technically known as Strongylus-filaria or Thread-lung-worm, invades the lungs of sheep. The most commonly received view is that the ova and embryos are injected with their foods and water, and with the instinct found in parasites of all kinds, select the locality most suitable for their further develop-

nent-the lungs. The most susceptible to this verminous bronchitis disease are the young animals, those that have become weakened from other parasitic diseases and the poorly ourished ones. The sheep seem exemp from it in the winter and in the spring time, probably from the fact that the de velopment of the worm depends or warmth and moisture, it being more prevalent in summer if the season proves

In the first stages of the are no symptoms by which the trouble is made apparent, except perhaps in the worst cases. Some animals are very much worse infected with the worms than others. By and by, there is a slight but deep ough, and if the sheep is driven it breathes hard and with difficulty; in other words, is short-winded. The appetite seems fair, but the sheep doesn't thrive, and this is perhaps the first perceptible ymptom that something is wrong, the kin becomes dry and harsh (this is why it is known by some as "Paper Skin"), the wool can easily be pulled off and as the disease progresses it becomes more and more emaciated and debilitated, and if the sheep is closely watched when coughing, the little shreddy masses it coughs up will be found, on close exami-nation, to contain worms. As the disease makes such headway be-

ore being suspected, a large percentage ie, the anemic animal standing no chance stitution to resist the disease and the amount of infection is small, if the season

nust be mixed with from one to two

but before doing so a few words concern-ing the administration of medicine to

Nichols-Shepard Engine

Nichols & Shepard Co., Battle Creek, Mich.

BRANCH HOUSES.

Feeding Compound Live Stock



It is essential for the well-being of all animals that they receive a suitable addition to the ration, not only to re store them if out of condition, but to keep them in the most profitable state of health. This is obtained by Lincoln Feeding Compound which is a great improve ment upon and desirable substitute for so-called "Stock Foods." Write for literature regarding this chean and economical preparation.

PASTEUR VACCINE CO., 56 Fifth Ave., Chicago.

The Three Million Acre

FARWELL RANCH

in the Panhandle of Texas FOR SALE

IN TRACTS TO SUIT.

The land is largely chocolate or black sandy loam, deep, rich, capable of producing forage crops in great abundance. It is thickly coated with buffalo, mesquite, grama, sedge and other choice grasses Rainfall ample for production of forage crops, grasses and fruits. Admirably adapted for Grapes, Pears, Peaches, Apples, Plums, Melons, etc. An inexhaustible supply and excellent quality of water is procurable at an average depth of 125 feet. The altitude varies from 2300 feet at the south to about 4700 at the north. The temperature is equable and the climate unexcelled for healthfulness. This is the best cattle and stock breeding country in the world. Panhandle cattle are of very superior quality, a carload of steers bred on this Ranch having been reserve number for the grand champion carload of fat steers at the International Live Stock Exposition in Chicago, December, 1900. The stock subsists on the pastures the entire year, finding very nutritious food in the cured native grasses. This is an unprecedented opportunity for those desiring to engage in the stock farming business or for investors willing to hold for appreciating values. The small ranchmen in the Panhandle have made more in recent years for the capital and energy invested than the farmers in any section of our country.

The Ft. Worth & Denver City Ry, traverses the north end of this land, the Pecos Valley and Northeastern Ry, (part of the Santa Fe system) the south end, and the Chicago, Book Island and Pacific Ry. is constructing a line from Liberal, Kas. to El Paso, Texas, which will soon traverse the middle of it. Title perfect. Will be sold in solid blocks to suit purchaser for cash or

very liberal time payment.

To inspect lands call on A. G. Boyce at Channing, a station on the Ft. Worth & Denver City Ry. in Hartley Co., Texas, and for full particulars write him or Wm. Boyce, agent, Amarillo, Texas; or Geo. Findlay, agent, 148 Market Street, Chicago, Ill.

Cedar Lawn, E. H. Rodgers, Proprietor,
Breeder of registered Shropshire Sheep, Poland China Hogs and Shorthora Cattle. Also Mammoth Bronse Turkeys and Sarred Rock Chickens.

Cattle, Also Mammoth Bronse Turkeys and Sarred Rock Chickens.

FINE BERKSHIRES Of the best families at farmers' prices. Write for what you want, or what is better, come and inspect the stock W. H. KER, Prairie du Rocher, Illinois.

SUNNYSIDE HERD OF PRIZE WINNING UP-TO-DATE BERKSHIRES. Six boars ready for service for \$25.00 each, that will make show boars; three of them cired by Lord Premier 50001, out of a show sow. Ten nice young sows bred to farrow in June; we will sell for \$25.00 to \$55.00 each, guaranteed in pig. Correspondence solicited, inspection invited. HARRIS & McMAHAN, Lamine, Cooper Co., Mo.

ANGORA GOATS FOR SALE.

I have 500 High Grade Angora Does, yearlings and two-year-olds for sale. Eighty head of recorded Does, also 500 head of two and three-year-old wethers. Parties desiring goats would do well to correspond with me before hardeness. Address

W. T. McINTYRE, Agt., (KANBAS CITY) Kansas City, Mo:

useful in sheep than those of a drastic All drenches must be administered care-

fully and very slowly, so that they may trickle down into the true stomach and not be lost in the rumen or paunch. During the administration of medicine, the head of the sheep should be held by an

As a stimulating tonic for anemia or debility, a half pint of beer divided into two doses and given morning and evening, works good results. In regard to preventive measures, you

In regard to preventive measures, you have constantly to meet the argument, both concerning parasites and specific diseases, that the efforts of one individual sheep man are useless so long as the state remains indifferent.

tle exposure to cold or wet, or even heat, which is uncomfortable to a shorn sheep, If one would have successible to the shorn sheep.

SUGGESTIONS FOR SHEPHERDS.

SHROPSHIRE RAMS. all yearlings, for sale; also my stud ram for sale or trade for one as good. Address L. G. JONES, Towards, Ill.

A ewe which disowns her lamb persistently may be confined in a narrow stall in which she cannot turn around, and after she has been held a few times she will become as motherly as may be wished. A young man known to us put a little

start business on. Doubtless that young fellow will be heard of as a big sheep sheep industry is on a stronger founda-

tion than at any time within a dozen Sheep are tender things, and a very lit- throughout the middle and eastern states

Precautionary care is much better than fiving one teaspoonful of turpentine once a day for a beginning, gradually increasing the dose as I find the animal can stand it, until I have given four teaspoonfuls at one time; each dose of turpentine once a time to the complexions and the stand it, until I have given four teaspoonfuls at one time; each dose of turpentine once a special care should be mixed with them, know their complexions, as one very successful shepherd said of his flock, and so perceive the first appearance of anything that may be wrong.

Nursing pens for ewes with lambs that need some special care should be mixed with the mixed with them, know their complexions, as one very successful shepherd said of his flock, and so perceive the first appearance of anything that may be wrong.

Don't on any account of the sheep, watch their actions, get fully acquainted with them, know their complexions, as one very successful shepherd said of his flock, and so perceive the first appearance of anything that may be wrong.

Nursing pens for ewes with lambs that need some special care should be providing twine for tying your fleeces, nor even the strength of the somewhat desultory remarks, at before doing so a few words concerning the administration of medicine to deep should be given.

Nursing pens for ewes with lambs that need some special care should be providing twine for tying your fleeces, nor even tying up wool sacks. The vegetable fibers in these twines get mixed up with the wool and cause manufacturers more or less loss, as it is impossible to amaigamate them with wool beyond detection. Speaking of the ups and downs of the drove the sheep; he went ahead and they followed him.

ing the administration of medicine to drove the sheep; he went aread and the sheep should be given.

First, sheep, and cattle as well, are much easier drenched out of a bottle than should study up the economy of machine shearing. One cent for shearing a sheep lis a low price, but it is possible with a oleaginous cathartics are more frequently shearing machine.

American arrival, Art. Close of 16 wa star to us the other day that in 1896 he saw Frank Barton of Vermont sell 400 Vermont Merino ram lambs for \$10,000, one man for \$2,000 and another for \$1,500. Those who have been shearing a sheep in the usual study up the economy of machine are more frequently shearing as the properties are more for \$1,500 he saw Frank Barton of Vermont sell 400 Verm

	2 mard at 120 to 152c. No. 3 apring at 65½c. CORN—Cash Market—Sales on trk., delivered: No. 2 at 44½c, mainly at 55c; No. 3 at 44½644½c; No. 4 at 44c; No. 2 yellow at 55½c; No. 5 do. at 45½c. No. 5 do. at 45½c. No. 5 do. at 45½c. Cash. Market—Easier, but selling	Case. Louisiana berries arrived very soft and poor; 3-gallon cases sold at 75c to \$1 and 6-gallon cases at \$1.50 to \$2.
	at 45%c; No. 2 white at 45%@45%c; No. 3	LIVE STOCK.
	OATS-Cash Market-Easier, but selling	HORSES-Although the total arrivals
	OATS-Cash Market-Lasset, OA 3 sold on trk, at 29% 690c, and fancy 30c; No. 3 at 29%c; No. 4 at 23%c; No. 2 white at 20% 6 31c; No. 3 do at 29%c to 30%c; No. 4 do. at	for the day were large beyond all expec-
	291/20; No. 4 at 28%c; No. 2 white at 30% (6)	tations, they were distributed among sev-
	2914c to 30c, and fancy at 3014c.	mediate auction of only fair proportions.
	291/20 to 300, and fancy at 301/20. RYE—Firm, but quiet. Grade No. 2 salable at 55c this and E. side.	eral firms, leaving the supply for the immediate auction of only fair proportions. This fact, coupled with a very active demand, chiefly from Eastern quarters, gave
	MILT.FEED. Eastern shippers will pay	to the movement a very short existence.
	for been Tie for quick shipment or 700 for	but it was brisk and sharp while it lasted. Offerings were not of any too good qual-
		ity-in truth many were below the wants
		of the demand-but buyers made the best of the situation, and of the class those
	supplies at outside points. On this state Southern buyers after bran f. o. b. boat and quotable thus at 74@75c, At mill bran sells at 75@76c and ships at 80c.	of the situation, and of the class those available sold well, not perhaps strictly up to the unusual prices of last week, but
-	HAY—Current rates on try. 4 for timothy	on a good, firm basis. Finished Boston
	11.50 for No. 2, \$9@10 for No. 8; prairie \$11@	chunks were ready sellers at \$110 to \$135,
	nells at 75@76c and ships at 80c. HAY—Current rates on try.¼for timothy \$14 for choice, \$12.50@13 for No. 1, \$10.50@ 11.50 for No. 2, \$3@10 for No. 3; prairie \$11@ 11.50 for No. 1, \$9.50@10.50 for No. 2, \$3.50@ 9 for No. 3. Clover \$3@12.	on a good, firm basis. Finished Boston chunks were ready sellers at \$110 to \$135, and plain ones at \$85 to \$100. Harness horses were not plentiful, but one black county adding way seed equilibratives was read equilibratives.
	PRICES ON CHANGE.	\$170, and medium ones at \$120 to \$140. There does not appear any let-up in the demand
	prices in the future and cash grains:	for English cavalry horses, but there is more limitation being put on the quality.
	Closed Range Closed Saturday. Monday. Monday.	and some of the plainer ones did not sell quite as good as last week.
	W Dent-	Horse quotations:
	May72%@% b 73%@73% 73% b July70%@% b 70%@69% 70% b	Heavy draft-Common to good, fice to
	Sept70% b 70 a	Heavy draft-Common to good, fit to to \$150; choice to extra, \$160 to \$200. Churks, 1,150 to 1,350 lbs.—Fair to good, \$75 to \$30; good to choice, \$85@120. Coach horses over cobe. Fair to good \$155 to \$155; heavy
	Corn- May41½ 44½@44½ 44¼	good to choice, \$95@120. Coach horses and cobs—Fair to good, \$125 to \$175; choice
		to extra, \$200 to \$500. Horses for the South, small, light drivers—Fair to good, \$75 to
	Oats— May29¼ a@ 29¼ a	small, light drivers—Fair to good, 775 to
	July 26% b 26% 6026% 26%	\$40; choice to extra, 450 to 465; Southern drivers, large, \$80 to \$115. Export chunks,
	Cash wheat, corn and oats. Range Range Range	1,200 to 1,400 !bs.—Plain to good, \$35 to \$1:0; choice to extra, \$115 to \$135. Business drivers—Fair to good, \$85@110; choice to extra,
	Wheat-	ers-Fair to good, \$85@110; choice to extra,
	No. 2 red741/2075 74 @741/2 711/2072	\$125@160. Saddlers for Southern use, fair to good, \$50@90; choice to extra, \$100@160; fancy-gaited New York saddlers, \$150@300.
	No. 4 winter 64 (269) (5) (270 63 (267) 61	fancy-gaited New York saddlers, \$150@300. Inferior horses, common, small plugs,
	No. 2 hard72 @7214 7216@73 65 @6516 1	\$12.50@30: heavy work plugs, \$25@45.
	No. 3 hard71\(\hat{G}\)71\(\frac{1}{2}\) 71\(\hat{G}\)72 62\(\hat{G}\)64 Corn—	MULES—The mule receipts Monday were around 125 head, no inconsiderable run for the time of year, but as the bulk of them went to local dealing interests
	No. 245 @ 45 @45½ 39½@39½ No. 34½@ 45 @	run for the time of year, but as the bulk
	No. 344%@ 45 @	and few to the commission market, there was little opportunity for the trade to as-
	No. 3 white 45\\@ 45\\@ 40 @40\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	was little opportunity for the trade to as-
	No. 229½@29½ 29½@30 25 @ No. 329 @ 29 @ 23½@24	the case in so much as the exterior de-
	No. 229½@29½ 29½@30 25 @ No. 329 @ 29 @23½@24 No. 2 north.30¼@ 30¼@ 25½@25½	was little opportunity for the trade to as- sert its strength. This was particularly the case in so much as the exterior de- mand, being perhaps delayed, did not de- velop to any great extent on the early market, consequently leaving every
	No. 2 white 304@ 304@ 28 @	market, consequently leaving every
	No. 4 white 29 630 291/6 251/4 6926	transactions were concerned. Neverthe-
		less, the dealers expressed a firm view of the situation, especially as pertained to
	COTTON-The local market was dull	choice big, heavy mules and to miners of
	Call and Cal	the various sizes and weights, while com-
	low middling, 7 5-16c; middling, 7 15-16c;	mission salesmen quoted no change in the market from the strong stand which
	1-16C,	it assumed on good mules last week. Although nothing definite is proclaimed, the
		demand for British war mules evidently
	While the demand mor not active it heat	still obtains with as much vigor as at any time recently, many of those in the con-
	While the demand was not active, it kept pace with the offerings, and all sales were	signments received being of that camper.
	pace with the offerings, and all sales were on basis of unchanged quotations. The	In a superficial way the market can be quoted active and steady, at satisfactory
	bring 174c, and are in better request at	quoted active and steady, at satisfactory figures for every good class above 15
	that price than other grades are at rela-	hands. Mule quotations for broke mules, 4 to 7
	that price than other grades are at relatively lower rates. Old wool quiet. About 125 sacks of new near-by sold in lots at from 15c for slightly burry to 17@17½c for	vears old:
	from 15c for slightly burry to 17@17½c for clear and a few exceptionally choice lots	14 hands, extreme range\$ 45.00 to \$ 70.00 14 hands, bulk of sales 50.00 to 55.00
	de la	141/4 hands, extreme range 50.00 to 80.00

WOOL—Receipts of new clip showed considerable increase yesterday, particularly of lots grown in near-by sections. While the demand was not active, it kept pace with the offerings, and all sales were on basis of unchanged quotations. The cost lots (clear bright long staple) readily bring 17%c, and are in better request at that price than other grades are at relatively lower rates. Old wool quiet. About 125 sacks of new near-by sold in lots at from 15c for slightly burry to 17@17%c for clear and a few exceptionally choice lots for a shade more.

Missouri and Illinois. Medium

Sancks of new near-by sold in lots at from 156 for slightly burry to 1763174c for clear and a few exceptionally choice lots for a shade more.

Missouri and Illinois—Medium combing, 1763174c for a shade more.

Missouri and Illinois—Medium combing, 1763176c for a shade more.

Missouri and Illinois—Medium combing, 1763176c for a shade more.

Missouri and Illinois—Medium combing, 1763176c for a shade more.

Missouri and Illinois—Medium combing, 1763176c for a shade more.

Missouri and Illinois—Medium combing, 1763176c for a shade more dand low, 156316c; burry and clear mixed, 1763176c for a shade more.

Missouri and Illinois—Medium combing, 1763176c for a shade more dand low, 156316c; burry and clear mixed, 1763176c for a shade more dand, 1763176c for a shade

Creamery—Extra. 18/4616. Country—Chote. 6/10c; seconds, 15616. Country—Chote. 6/10c; seconds of the southwest, which reports the acreage at 19 per cent. 19 per CASTOR BEANS—Bid \$1.30 per bushel for prime in car-lots; smaller lots and inferior less.

HEMP-SEED—Quotable at \$2.75 per 100 pounds, pure test. Šale: 11 sacks on p. t. DRIED FRUIT—Market quiet and nominal. Offerings confined to a few small lots of inferior grades. Apples: Evaporated—Rings at \$4,0 to 4c; quarters at \$6,0 to 4c; chops at \$4,2 to 4c; quarters at \$6,0 to 4c; chops at \$4,2 to 10,0 per pound. WHITE BEANS—Hand-picked pea beans in a Jobbing way from store at \$1.30,0 \$2.00 per bushel; screened at \$1.30,0 \$1.50 per bushel. Country at \$1,0 \$1.50 per bushel. Country at \$1,0 \$1.50 per bushel. Honey at \$1,0 \$1.50 per bushel; screened at \$1.30,0 \$1.50 per bushel. Honey at \$1,0 \$1.50 per bushel. Honey at \$1,0 \$1.50 per bushel; screened at \$1.50 per bushel. Honey at \$1,0 \$1.50 per bushel. Honey at \$1,0 \$1.50 per bushel. Honey at \$1,0 \$1.50 per bushel honey at \$1.50 per

barrels, at 44/g5c, and in cans at 5/g5/4c—California more.

BEESWAX—27c per pound for prime.

ROOTS—GINSENG, 33.75 for small to
\$4.95 for large; lady slipper, 6c; seneca,
25c; pnik at 14c, golden seal at 35c for new
—old 37c, may apple at 2/9c, snake at 23c,
black at 3/9c, angelica at 36c, wahoo—
bark of root 8c, bark of tree 2/9c, blood
2/9c, blueflag 3c, skull cap leaves 5c, sassafras bark 4c, wild ginger 4c.

CASTOR OIL—In lots of 200 gallons or
over at 12c per pound for No. 1 and 10/9c
for No. 3—smaller quantities, 1c per pound
more.

COTTON-SEED OIL—Summer yellow at 36c; white, 37c; winter yellow, 41c, and CAREER AND CHARACTER OF ABRAHAM LINCOLN.

The Thankets

WHEAT—Cash Market—By sample: No. 2 red sold at 74% c this and 75c E. side; No. 2 hard at 72c to 74%; No. 3 at 65c to 70c; No. 2 spring at 65%c.

CORN—Cash Market—Sales on trk., delivered: No. 2 at 44%; mainly at 65; No. 3 do at 44%c White at 45%c No. 2 yellow at 45%c; No. 4 at 46c; No. 2 yellow at 45%c; No. 5 hard at 75c to 76%c; No. 5 hard at 75c No. 6 at 46%c.

Louisiana berries arrived very soft and poor; 3-gallon cases sold at 75c to \$1 and 6-gallon cases at \$1.50 to \$2.

LIVE STOCK.

In a superficial way the market can be quoted active and steady, at satisfactory figures for every good class above 15 hands.

Mule quotations for broke mules, 4 to 7 years old:
14 hands, extreme range...\$ 45.00 to \$70.00
14 hands, bulk of sales.....50.00 to \$5.00
14 hands, bulk of sales.....50.00 to \$0.00
15 hands, extreme range...\$ 50.00 to \$0.00
15 hands, extreme range...\$ 50.00 to \$10.00
15 hands, extreme range...\$ 50.00 to \$15.00
15 hands, extreme range...\$ 50.00 to \$15.00
15 hands, bulk of sales.....\$ 50.00 to \$15.00
15 hands, extreme range...\$ 50.00 to \$15.00
15 hands, extreme range...\$ 50.00 to \$15.00
15 to \$16% hands, bulk of sales....\$ 50.00 to \$155.00
16 to \$16% hands, bulk of sales....\$ 50.00 to \$155.00

REMEDY FOR TICKS.—In answer to nquiry for remedy for tick bites, I will say that we have lots of ticks here. There are two kinds—a large blue tick and a brown tick that resembles the bed bug. These ticks annoy not only people, but cattle and horses. To get rid of them use grease thoroughly. Any kind of grease will do—axle, lard and coal oil, equal parts, or a teaspoonful of carbolic acid in a half pint of grease. Never pull the ticks off, for if you do the head is left in the flesh and makes an ugly and irritating sore. One application of grease

usually removes the ticks and heals the bite without any unpleasant results. Will some one tell me how to solder dishes made of aluminum?

at Sec. white, 37c; winter yellow, 4lc, and white, 43c.

LINSEED OIL—Quotable, per gallon:
Raw at 6lc; boiled at 62c—lc per gallon less in car lots.

STRAWBERRIES—A lower range of prices established, due mainly to poor condition of offerings, as the larger portion of supply was stock that came in Sunday and was held over at depots until Monday morning, suffering some damage by the detention. Choice berries in pretty fair demand and no surplus offerings of such; the weather was cool Monday morning, too, and this also had a quieting

A SPLENDID SHOWING

What Illinois As a State Is Doing to Promote Her Agricultural Interests as Indicated by the Enactments of the 42d

For the current expenses of the State Board of Agriculture, and premiums awarded at the State Fair, per annum

For each County Agricultural Board, per annum, \$200.

For permanent improvements and main-tenance of the state fair grounds and buildings, \$94,000; which provides for an amphitheater for the exhibition of live stock, and machinery hall. For the Illinois Farmers' Institute, \$10,-500 per annum, which includes \$2,500 for

free libraries for the rural districts. For each County Farmers' Institute, \$75

For the experiment station work, \$16,-900 for live stock, \$10,000 for corn investi-gation, \$10,000 for chemical and physical examinations of the soil of the state, \$10,-000 for horticultural experiments, \$5,000 for dairy investigations, and \$3,000 for sugar beet cultivation and analysis, mak-ing a total for the experiment station of

\$54,000 per annum. The State Horticultural Society gets \$5,-000 per annum for experiment stations, annual report and state meeting.

The State Dairymen's Association gets \$1,500 per annum for publication of annual report and state meeting. The Illinois Live Stock Breeders' Asso-

ciation gets 4500 per annum for annual meeting.
The Illinois Poultry Association, for an-

nual exhibits, gets \$2,000 per annum.

The appropriations for the University of Illinois in addition to the above, makes liberal provision for furnishing the new agricultural building and for instruction

on agricultural lines. on agricultural lines.

Among the many members of the General Assembly to whom the farmers of Illinois are under obligations for these liberal appropriations, Senator P. T. Chapnan, Vienna, Ill., chairman of the Senate Committee on Appropriation, is deserving of special mention for his untiring efforts in behalf of the farming interests.

Representative A. N. Abbott, Union Grove, chairman of House Committee on Agriculture; Thomas Lamb, Jr., Bement, Ill.; Frank R. Milnor, Litchfield, and Bankin Monmouth, should be George Rankin, Monmouth, sho acknowledged as farmers' friends.

Verily, verily, the opportunities for agdeultural development in Illinois are most encouraging, and the judicious ex-penditure of these appropriations will in-crease the resources of the state a hun-A. B. HOSTETTER, Sec. Ill. Farmers' Institute.

MISSOURI WEATHER AND CROPS.

The U. S. Department of Agriculture Climate and Crop Bulletin of the Weather Bureau, Missouri Section, for the week

The past week has averaged decidedly warmer than usual throughout the state, the average daily excess in temperature ranging from 10 to 16 degrees, with a high percentage of sunshine. Up to Satarday, when the majority of correspondents' reports were mailed, little or no rain had fallen, except in a few of the central and western counties, but the latest reports indicate that good show-

ers fell in the western sections during Saturday night. Corn planting has progressed rapidly luring the week and is now well advanced n all sections. As a result of the continued dry weather, the ground, in many sections, had become hard and cloddy, requiring much extra labor to put it in condition for planting, and in some counties plowing was suspended. In many of the southern counties corn planted during the fore part of April came up poorly owing to the cold rains of April 17-18, and the subsequent baking of the surface soil, necessitating much replanting, but that planted since April 18 is generally coming up well. Cultivation has commenced in many of the southern counties. Bottom planting is well advanced in the south-eastern counties, but there is some complaint that the seed is not germinating well owing to dry weather. Flax, in the southwestern counties, is coming up well. Wheat and rye, though needing rain in

some sections, continue in excellent con-dition, except in the few southeastern counties where wheat has been damaged by the grain louse and chinch bugs. The earliest wheat is beginning to head in the extreme southern counties. Oats are dong well in some sections, but in general moisture. Pastures and meadows have also been unfavorably affected by the dry weather, especially spring sown clover and timothy. Early potatoes are coming up well, as a rule, except in some of the generally doing well but need rain.

The dry weather has been favorable for the fertilization of fruit bloom and the outlook for fruits of all kinds continues most promising, except that in a few of the northern counties the apple bloom is reported light. Canker worms are doing some damage to apples in Lafayette and Howard counties. Strawberries promise an excellent crop, as a rule.

A. E. HACKETT, Section Director.

CROP PROSPECTS.

An Antwerp letter of April 26 speaks of serious crop damage in Germany and the enormous demand from that country, which is without reserves of old wheat on hand. "There has been no crop fail-ure in Germany since 1891," it says, "and since that date the area has decreased, but the population has increased 9,000,000."

For the first time since last July, India last week exported some wheat. To be sure, only 8,000 bu., or 1 load, was shipped, and the shipment the preceding July was ony 12,000 bu., that the first since the pre-ceding Oct., but last week's may be the precursor of a good shipping movement from India this year, that country hav-ing raised one of the largest crops in sev-

the "Modern Miller," said: "I have been traveling all over the Territory, also have reports from my deputies, and the condition of wheat is the finest since the opening of the Territory to settlement. The growth is thick and rank, and with an increase of over 20 per cent in the acrease planted even the record-breaking crop of last year will be completely eclipsed this year, barring, of course, unforeseen accidents before harvest. In all my experience I never saw finer prospects, and when thrashing 4s over, Oklahoma will susten.

I and was as strong as the first year. The positions of peas and corn were, however, changed alternately every year.

Ripened peas make a delicious diet for man when well cooked or steamed, or the seds may be ground into a meal and mixed with bran or chopped feed for cattle. Horses also relish the pea meal. Cattle and hogs are pastured on ripened peas, the corn is not disturbed, peas being better relished.

Note Mr. Prunty's advertisement in this lasue.



MAKES SOWS RAISE MORE AND BETTER PIGS AND ONLY COSTS #23 FEEDS FOR ONE GENT.** IT MAKES SOWS GIVE MORE AND RICHER MILK. IT PREVENTS HOG CHOLERA BY MAKING THE PIGS STRONG AND KEEPING THE BLOOD PURE. IT GIVES PIGS A QUICK START AND MAKES PIGS WEIGH 300 POUNDS AT 8 MONTHS OF AGE. DAR SIRS:

I had a sow five years old last fall that was very rick, would not set as do could not get up. She was reduced to gak and bones and was almost dead. A neighbor recommended "international Stock Food" and they were all well and strong for two months, when two of wear the first day, soon had an appetite and was consuled. On the 28th days of May she had state on lags, but as she had but fourteen tests, and they were all well and strong for two months, when two of wear the first day, soon had an appetite and was soon well. On the 28th days of May she had statem play, but as he had but fourteen tests, a beyond the strong for two months, when two of wear the first day, soon had an appetite and was soon well. On the 28th days of May she had statem play, but as he had but fourteen tests, a beyond the strong for two months, when two of wear of May she had statem play, but of the present time for our frong occurs.

I had a sow five years old last fall that was very rick, would not set and out gat of the play in the strong that the play in January. Draw is the strong that the play is the strong that the play is the present time for our brood cown.

I had a sow five years old last fall that was very rick, would not set and out gat on the strong that the play is and they were all well and strong for two months, when two of the strong that the play is and they were all well and strong for two months, when two of the strong that the play is and they were all well and strong for two months, when two of the play is and they were all well and strong for two months, when two of the play is an and they were all well and strong for two months, when two of the play is an adversary of the play is an adversary. Draw all the play is an adversary of the play is an adversary of the play is an adversary of the play is an adversary. I had the play is an adversary of the play is an adversary of the play is an adversary. I had not strong for two mon

→ 3 FEEDS FOR ONE CENT →

Stock Food" for Horses, Cattle, Sheep, Hogs, Colts, Calves, Lamba or Piga? 2d. How many head of each kind of stock do you own? 3d. Name this paper.

THIS BOOK CONTAINS 183 FINE, LARGE, COLORED ENGRAVINGS OF HORSES, CATTLE, SHEEP, HORS, POULTRY, ETC.

DAILY.

DAILY.

Largest Stack Food Factory In the World. Answer the 3 Questions and Write for this Book to INTERNATIONAL FOOD CO., MINNEAPOLIS, MINN., Capital Paid in \$200,000.00. U. S. A.

easily lead the procession, acre for acre, as one of the greatest of wheat p SOUTHERN STOCK OR COW PEA.

CHAS. E. PRUNTY, the well-known St. Louis seedsman, says: These peas are grown in regions suitable for raising maize or sorghum, therefore extending from Hindostan to California. They make a favorite food for man, and hay for beast, and during the period of vegetation No. 41. promote fertility of the land.

HOW TO RAISE .- An approved method of raising cow peas, is to sow broadcast one bushel of the peas among corn when the corn is being laid by. In order No. 5. to do this properly the corn is to be planted in rows at least five feet apart. This arrangement will permit plenty of light and air to pass among the corn to perfect the plants and mature seeds The peas soon germinate after planting and grow rapidly, often forming a mat between the rows of corn, which smothers light rooted weeds and shades the soil so completely that the natural moisture of the soil is retained even during a bot

of the son is retained of the summer.

The pea, being a leguminous plant, draws much of its nourishment from the atmosphere. The land is therefore in the best of order, after the peas are removed, to bear the next crop. Corn and peas have been grown as described, for 25 years in C. T. Prouty, of Kingfisher, Ok., Territorial Grain Inspector, in an interview in the "Modern Miller," said: "I have been traveling all over the Territory, also have traveling all over the Territory, also have

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